

LBT-N650AV

SERVICE MANUAL

AEP Model

E Model

Australian Model

- LBT-N650AV is composed of following models.

As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR LBT-N650AV

Tuner, Preamplifier	STR-N600
Power Amplifier	TAN-N600
Cassette Deck	TC-N500
Compact Disc Player	CDP-N550C
Digital Surround Processor	SDP-N600

PARTS LIST

NOTE :

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation AUS : Australian

<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
1-467-998-11	COMMANDER, STANDARD (RM-S600L)	3-798-980-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH) (E, AUS)
1-501-374-11	ANTENNA, LOOP	3-800-830-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (AEP)
1-501-659-41	ANTENNA (FM) (E, AUS)	4-937-945-01	PLATE (TRANSPORT), LOCK
1-501-804-11	ANTENNA (FM) (AEP)	* 4-975-529-01	INDIVIDUAL CARTON (E)
1-769-392-11	CORD (WITH CONNECTOR) (16P - 16P) (STR-TAN)	* 4-975-530-01	INDIVIDUAL CARTON (AUS)
1-769-393-11	CORD (WITH CONNECTOR) (17P - 17P) (STR-TC-CDP)	* 4-973-307-01	CUSHION (UPPER) (STR/SDP)
1-769-394-11	CORD (WITH CONNECTOR) (5P - 5P) (TAN-SDP)	* 4-973-650-01	CUSHION (LOWER) (STR/SDP)
1-769-395-11	CORD (WITH CONNECTOR) (9P - 9P) (STR-SDP)	* 4-973-916-01	CUSHION (FRONT) (CDP)
3-707-584-21	COVER, BATTERY (for RM-S600L)	* 4-973-917-01	CUSHION (REAR) (CDP)
3-798-422-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)	* 4-978-209-01	INDIVIDUAL CARTON (AEP)

COMPACT Hi-Fi STEREO SYSTEM
SONY®

Sony Corporation

Consumer A&V Products Company
Home A&V Products Div.

9-960-269-12

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STR-N500/N600

SERVICE MANUAL

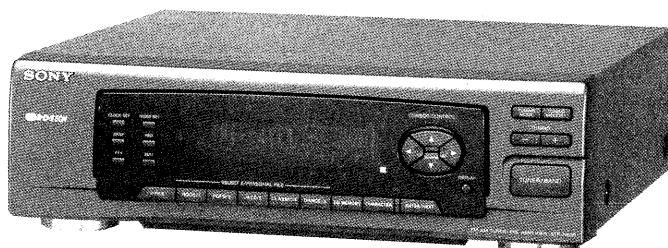


Photo: STR-N600

STR-N500/N600 are tuner and amplifier section in LBT-N500, LBT-N550, LBT-N550P, LBT-N600AV and LBT-N650AV.

AEP Model
UK Model
E Model
Australian Model
STR-N500/N600
PX Model
STR-N500

SPECIFICATIONS

System FM stereo
FM / AM superheterodyne tuner

FM tuner section

Tuning range 87.5 - 108.0 MHz
Aerial 75 ohms unbalanced
Intermediate frequency 10.7 MHz

AM tuner section

Tuning range
Latin American models:
AM: 530 - 1,710 kHz
German and Italian models:
AM: 531 - 1,602 kHz
Other European models:
MW: 531 - 1,602 kHz
LW: 153 - 279 kHz
Other models:
AM: 531 - 1,602 kHz

Aerial AM loop aerial
External aerial terminals
Intermediate frequency 450 kHz

Input	Jack type
AUX	Phono
PHONO (MM)	Phono

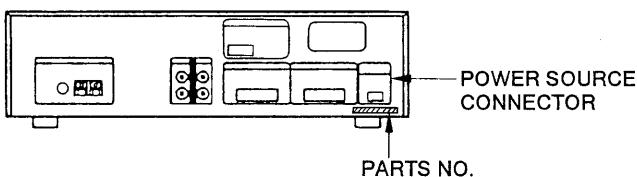
Input	Sensitivity	Impedance
AUX	245 mV	47 kilohms
PHONO (MM)	3.3 mV	47 kilohms

Weight Approx. 2.6 kg
Dimensions Approx. 355 x 105 x 315 mm
(w/h/d, including projections)

FM-AM TUNER/PRE-AMPLIFIER
SONY®

MODEL IDENTIFICATION

- BACK PANEL -



	PARTS NO.	NOTE
N500: UK Model	4-969-784-0□	With power source connector for PS-LX56P
N500: AEP, German, Italian Model	4-969-784-1□	
N500: East European, CIS Model	4-969-784-2□	
N500: E Model	4-970-163-0□	With power source connector for PS-LX56P
N500: Mexican, Australian, PX Model	4-970-163-1□	
N500: Argentine Model	4-970-163-4□	
N500: AEP 2 Model	4-973-530-0□	AEP model with power source connector for PS-LX56P
N600: AEP, UK, German, Italian Model	4-969-784-4□	
N600: East European, CIS Model	4-969-784-5□	
N600: E Model	4-970-163-5□	
N600: Australian Model	4-970-163-6□	

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

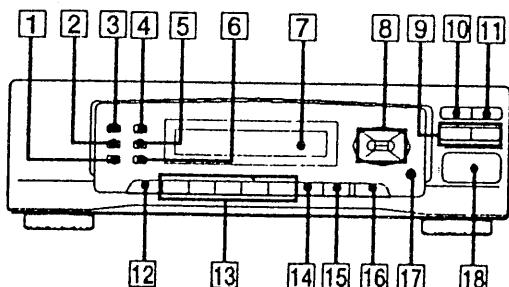
SECTION 1 GENERAL

This section is extracted from instruction manual.

1-1. INDEX TO PARTS AND CONTROLS

Front Panel

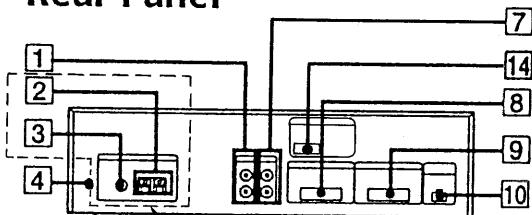
Tuner / Preamplifier (STR-N500/N600)



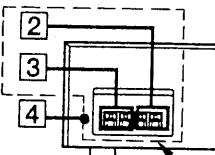
- [1] PTY button (*)
- [2] DAILY button
- [3] CLOCK SET button
- [4] TIMER SET button
- [5] REC button
- [6] EON button (*)
- [7] Display window
- [8] CURSOR CONTROL keys
- [9] TUNING (+/-) buttons
- [10] TUNING MODE button
- [11] TUNING MEMORY button
- [12] P.FILE button
- [13] SELECT 5/PERSONAL FILE buttons
- [14] EQ MEMORY button
- [15] CHARACTER button
- [16] ENTER/NEXT button
- [17] DISPLAY button
- [18] TUNER/BAND button

*: AEP, UK, German, Italian, East European ONLY.

Rear Panel



AEP, AEP2, UK, German, Italian, East European, CIS model



E, Australian, Argentine, Mexican, PX model

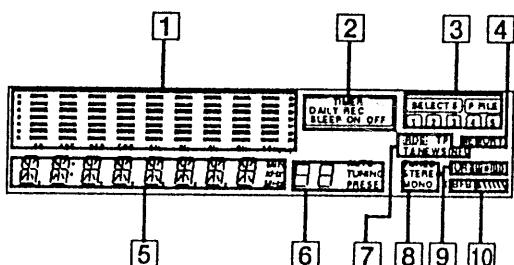
- [1] PHONO IN jacks
- [2] AM terminal
- [3] FM 75Ω terminal
- [4] ground terminal
- [7] AUX IN jacks
- [8] SYSTEM CONTROL 1 terminals
- [9] SYSTEM CONTROL 2 terminals
- [10] POWER SOURCE terminal (only for the model supplied with a turntable) (N500: AEP2, UK, E ONLY)
- [14] SYSTEM CONTROL 3 terminals (N600 ONLY)

*AEP: AEP model without power source for PS-LX56P.

AEP2: AEP model with power source for PS-LX56P.

Display Window

Tuner / Preamplifier (STR-N500/N600)



- [1] Spectrum analyser
- [2] TIMER DAILY/REC/SLEEP/ON/OFF indications
- [3] SELECT 5/P.FILE indications
- [4] MEMORY indication
- [5] Frequency/Station name/Function indications
- [6] AUTO/TUNING/PRESET indications
- [7] RDS indications
- [8] Tuner indications
- [9] SURROUND indication
- [10] DBFB indication

SECTION 2

ELECTRICAL ADJUSTMENTS

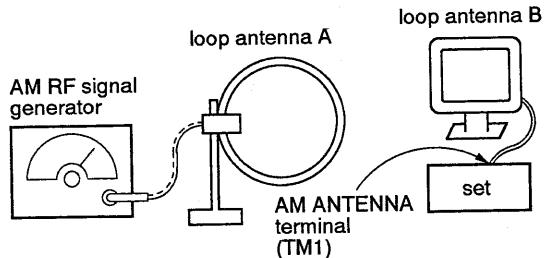
Note: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

The FM TUNED level must be adjusted after the AM TUNED level adjustment has completed.

0 dB=1 μ V

AM Section Adjustment

Setting:



Carrier frequency: 999 kHz (except E model)
Modulation: 400 Hz, 30% modulation

: 1,000 kHz (E model)

Modulation: 400 Hz, 30% modulation

AM tuned Level Adjustment

Band: AM

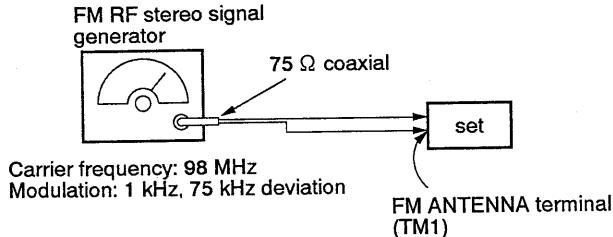
Procedure:

- Set loop antenna A so that the loop antenna B input level becomes $316 \mu\text{V}$ ($50 \text{ dB } \mu$).
- Tune the set to 999 kHz (except E model) or 1,000 kHz (E model).
- Adjust RV1 so that the TUNED indicator goes on.

Adjustment Location: main board

FM Section Adjustment

Setting:



Carrier frequency: 98 MHz
Modulation: 1 kHz, 75 kHz deviation

FM Tuned Level Adjustment

Band: FM

Procedure:

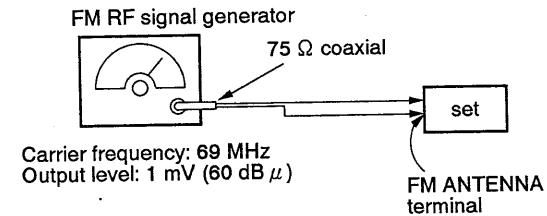
- Supply a $17.8 \mu\text{V}$ ($25 \text{ dB } \mu$) 98 MHz signal from the ANTENNA terminal.
- Tune the set to 98 MHz.
- Adjust RV2 so that the TUNED indicator goes on.

Adjustment Location: main board

FM POLAR Adjustment

Setting:

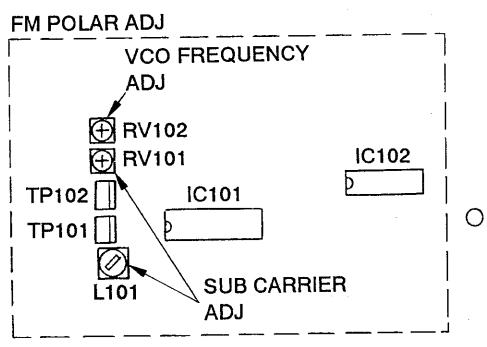
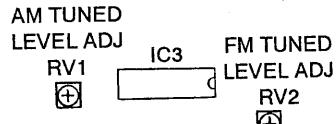
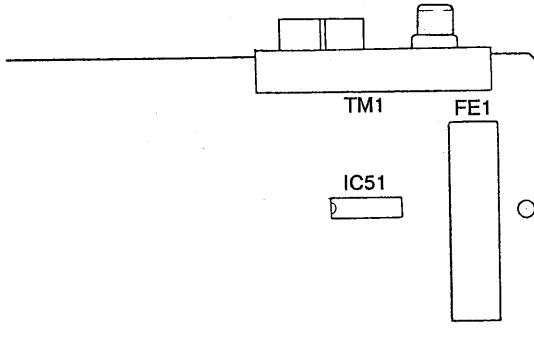
Band: FM



- Connect the frequency counter to the TP102 and adjust the RV102 for a frequency of $31.25 \text{ kHz} \pm 50 \text{ Hz}$.
- Connect the VTVM to the TP101, receive the signal of $69 \text{ MHz} \pm 1 \text{ kHz}$ (1 kHz dev.) and adjust the reading of the VTVM to 0 dB.
- Set the modulation frequency of the FM RF signal generator to 31.25 kHz (10 kHz dev.) and adjust the L101 so that the reading of the VTVM is 0 dB.
- Adjust the RV101 so that the reading of the VTVM to 14 dB.
- Check that the separation between Pins ④ and ⑭ of the IC102 is more than 18 dB.

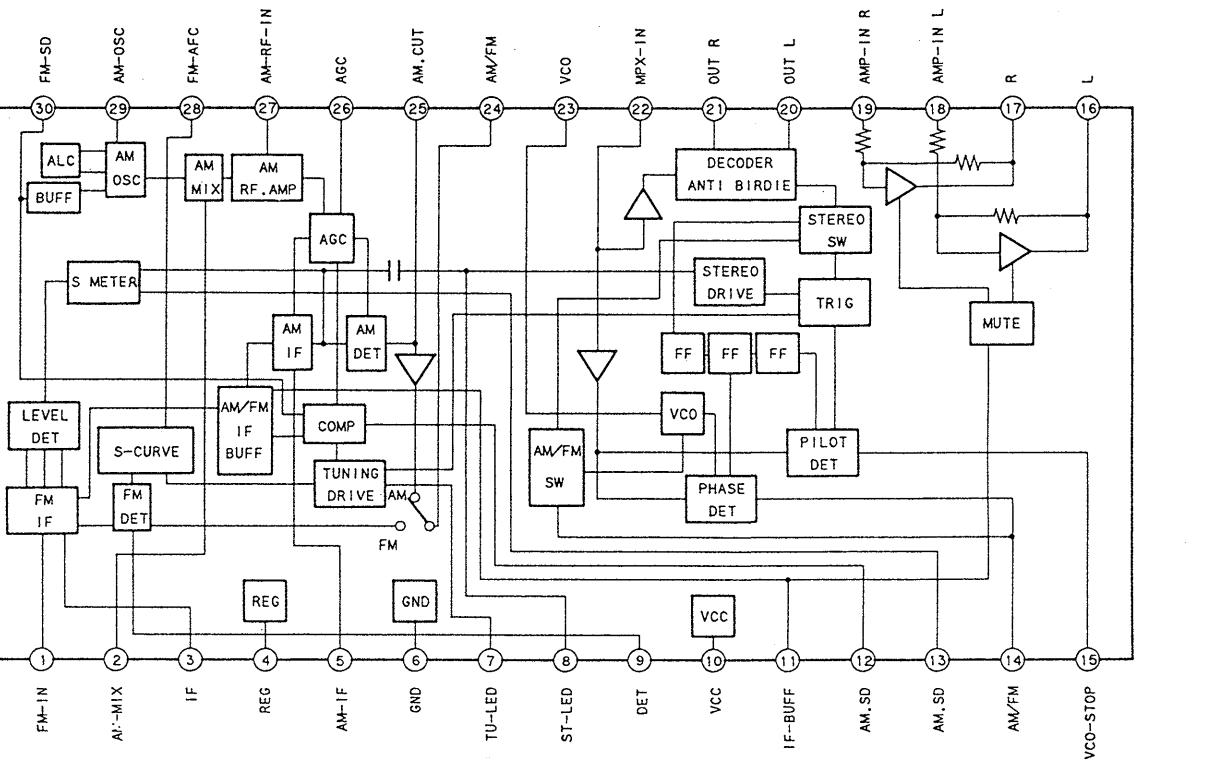
Adjustment Location: main board

[MAIN BOARD] (Component Side)

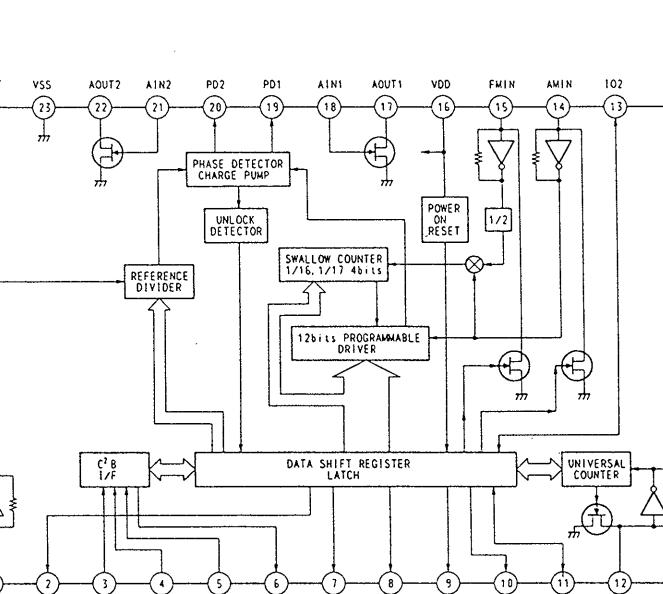


• IC Block Diagrams

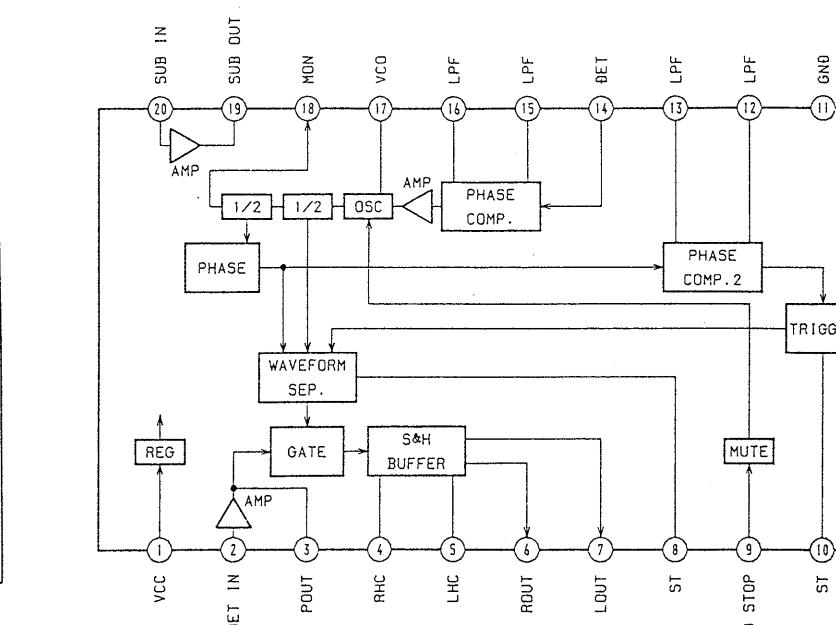
IC3 LA1835



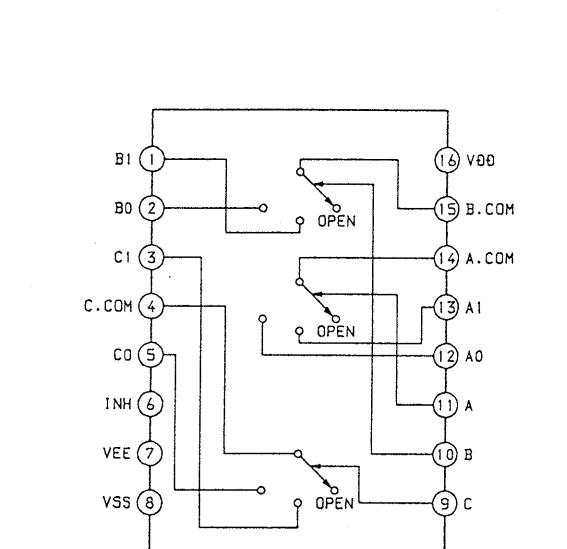
IC51 LC72130



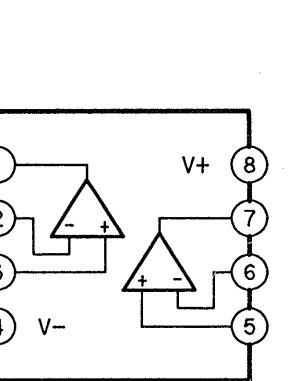
IC101 IR3R42



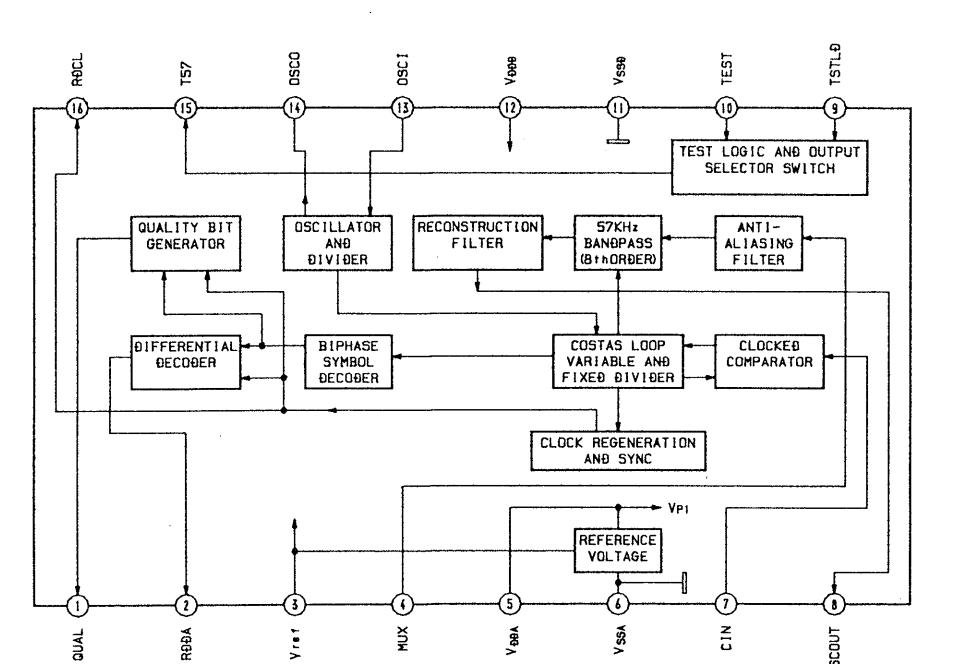
IC102 μPD4053BC



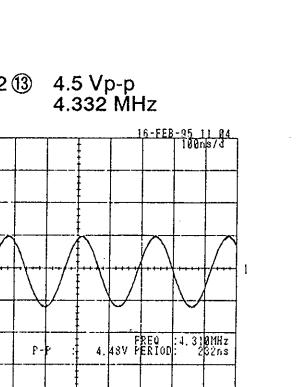
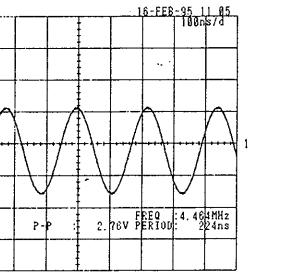
IC201 M5218AP



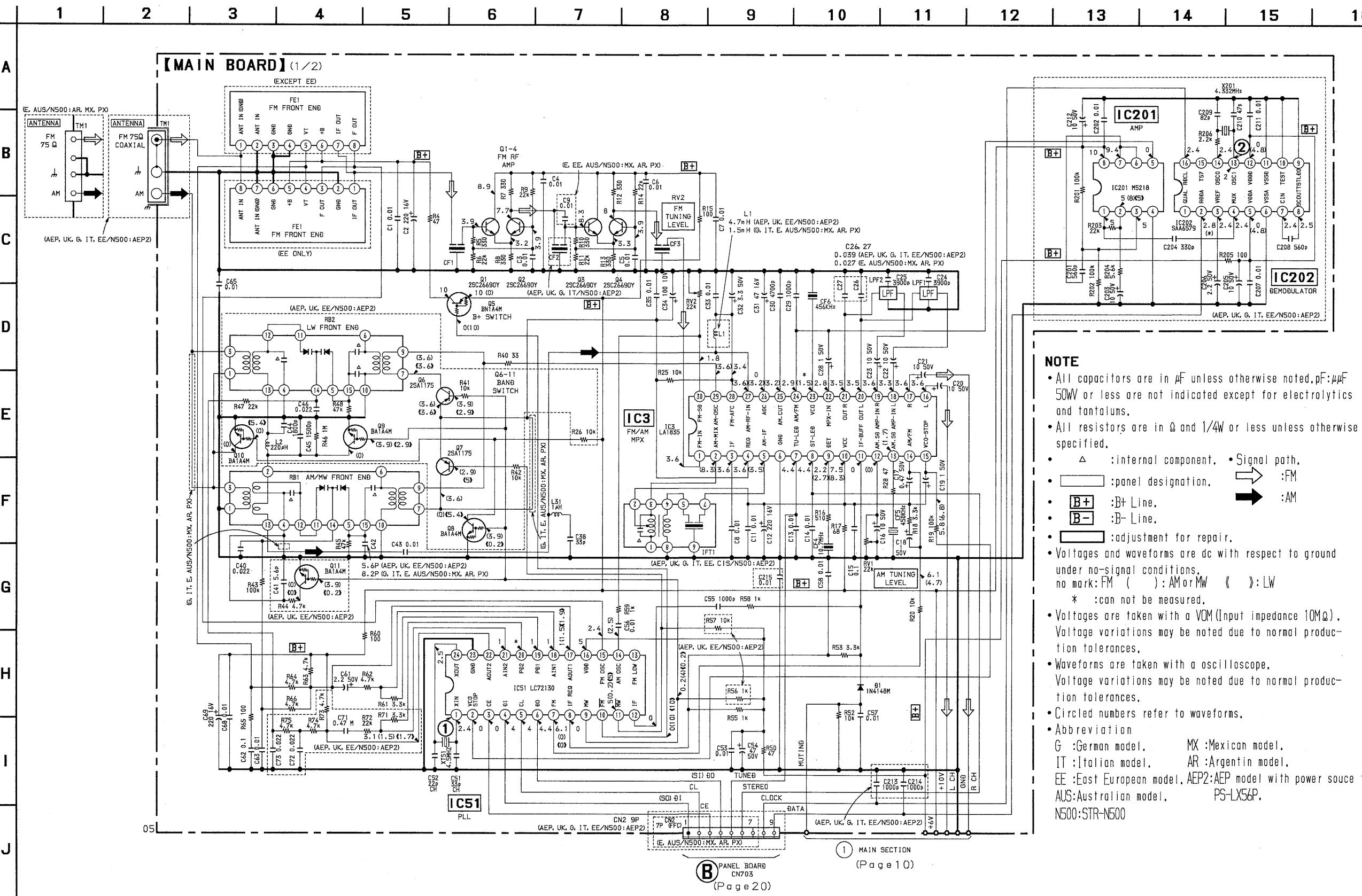
IC202 SAA6579



• Waveforms

① IC51 ① 2.8 Vp-p
4.5 MHzSECTION 3
DIAGRAMS

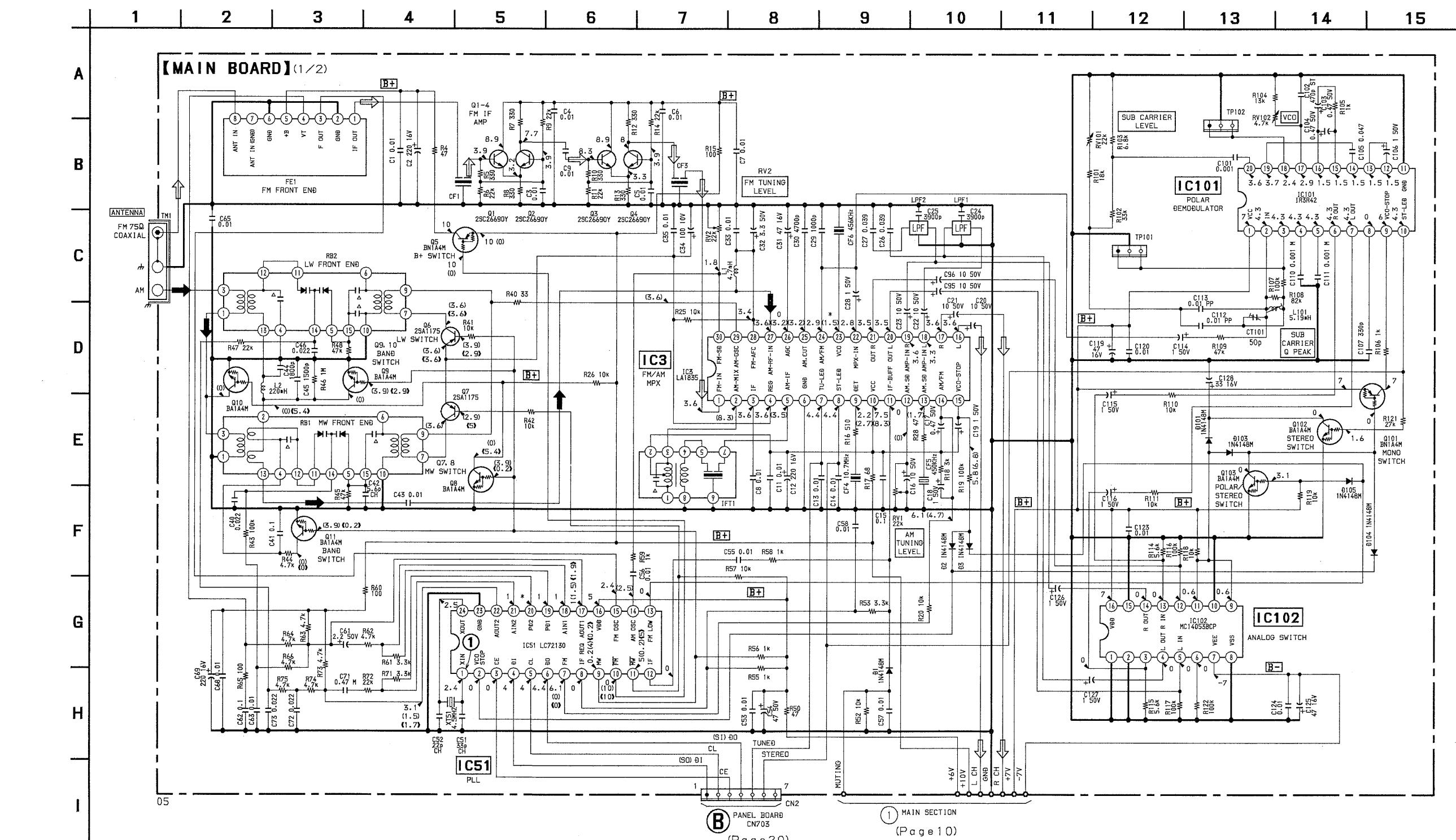
3-1. SCHEMATIC DIAGRAM — TUNER SECTION — • EXCEPT CIS model



NOTE

- All capacitors are in μF unless otherwise noted. μF 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component. \rightarrow : signal path.
- \square : panel designation.
- $B+$: B+ line.
- $B-$: B- line.
- \square : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions, no work: FM (): AM or MW (): LW
- * can not be measured.
- Voltages are taken with a VOM (Input impedance 1M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviations:
 - G : German model.
 - MX : Mexican model.
 - IT : Italian model.
 - EE : East European model.
 - AEP2 : AEP model with power source for AUS: Australian model.
 - PS-LX56P : Power source for PS-LX56P.

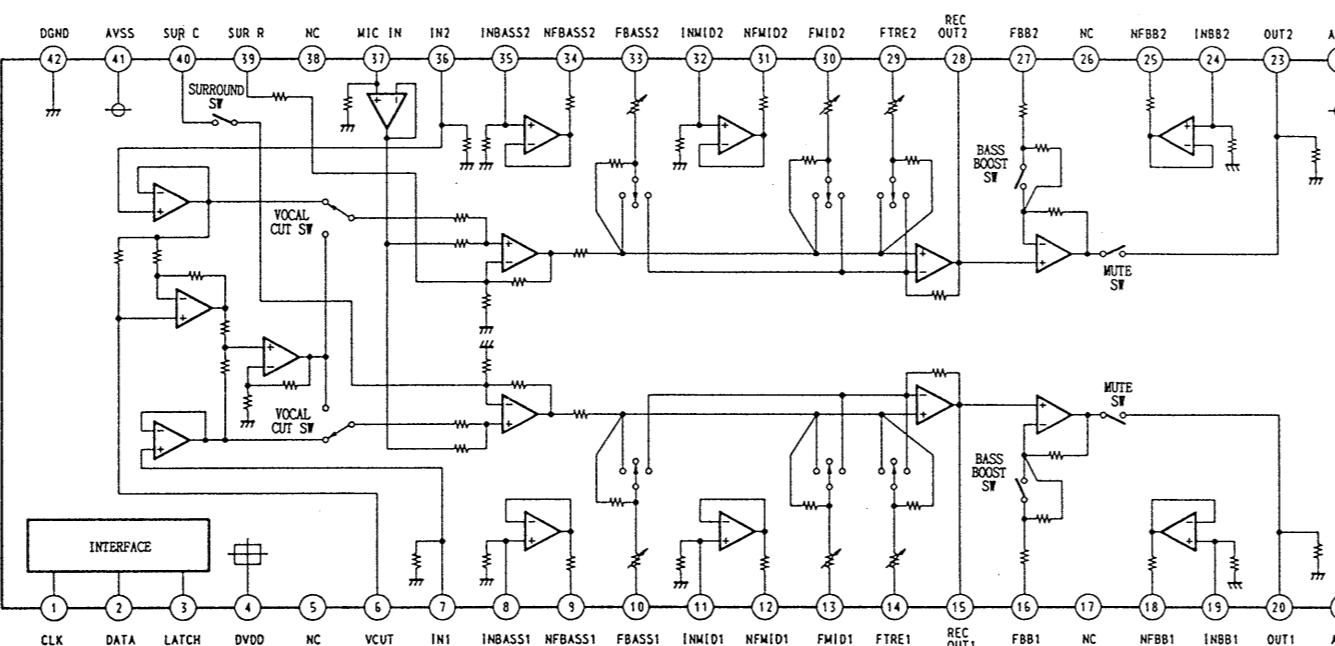
• CIS model



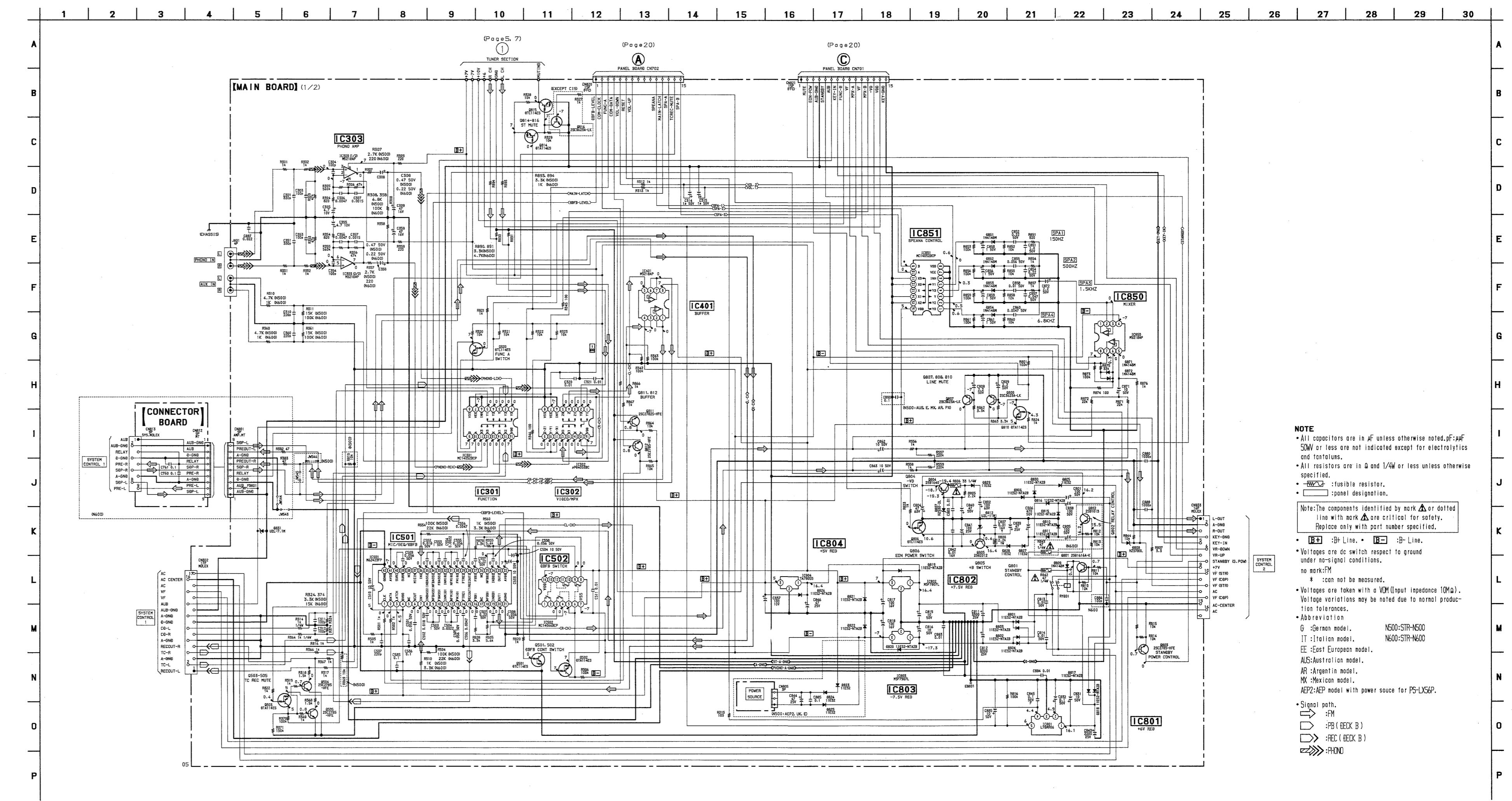
(B) PANEL BOARD CN205 (Page 20)

• IC Block Diagram

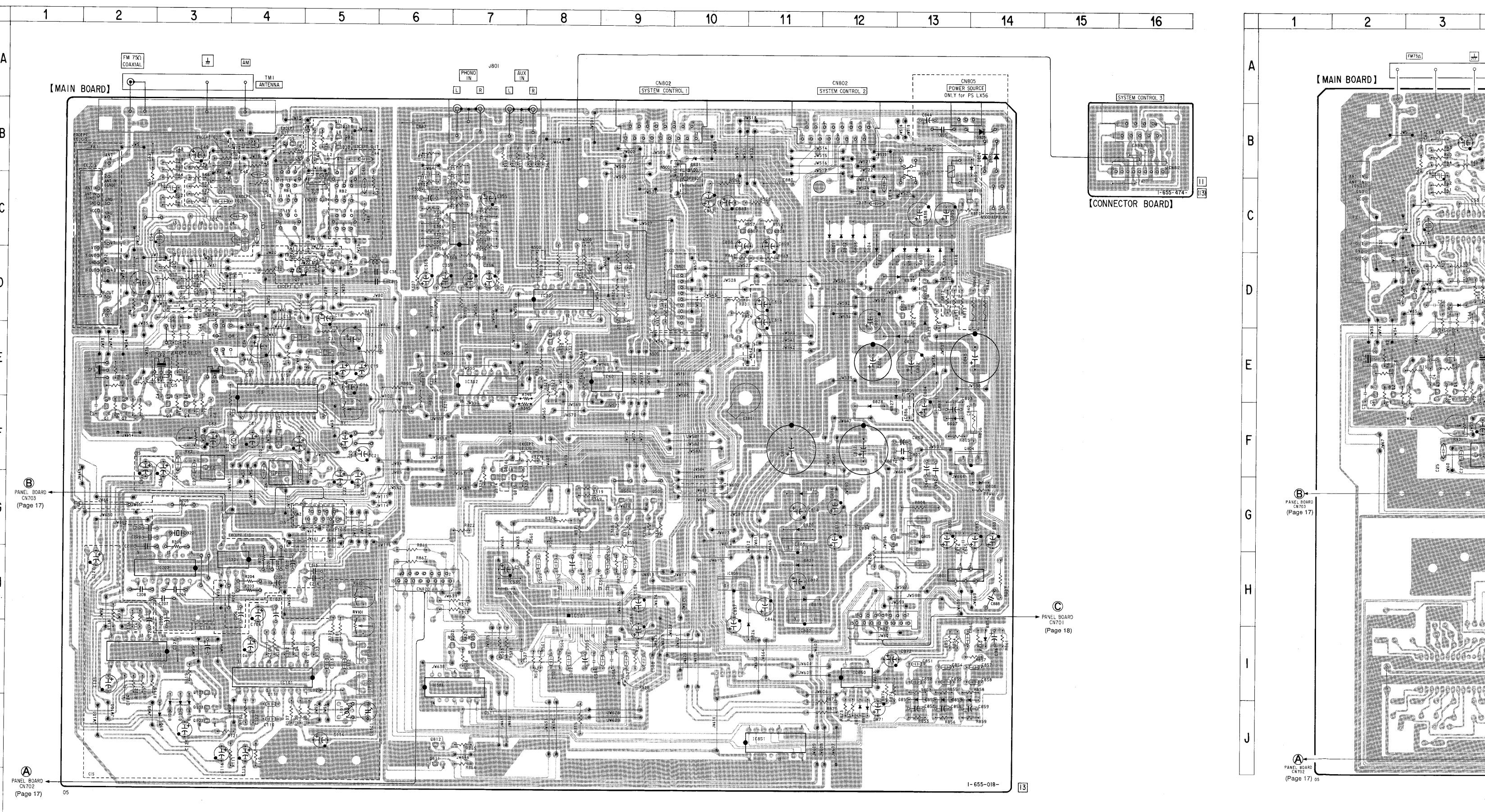
IC501 M62423FP



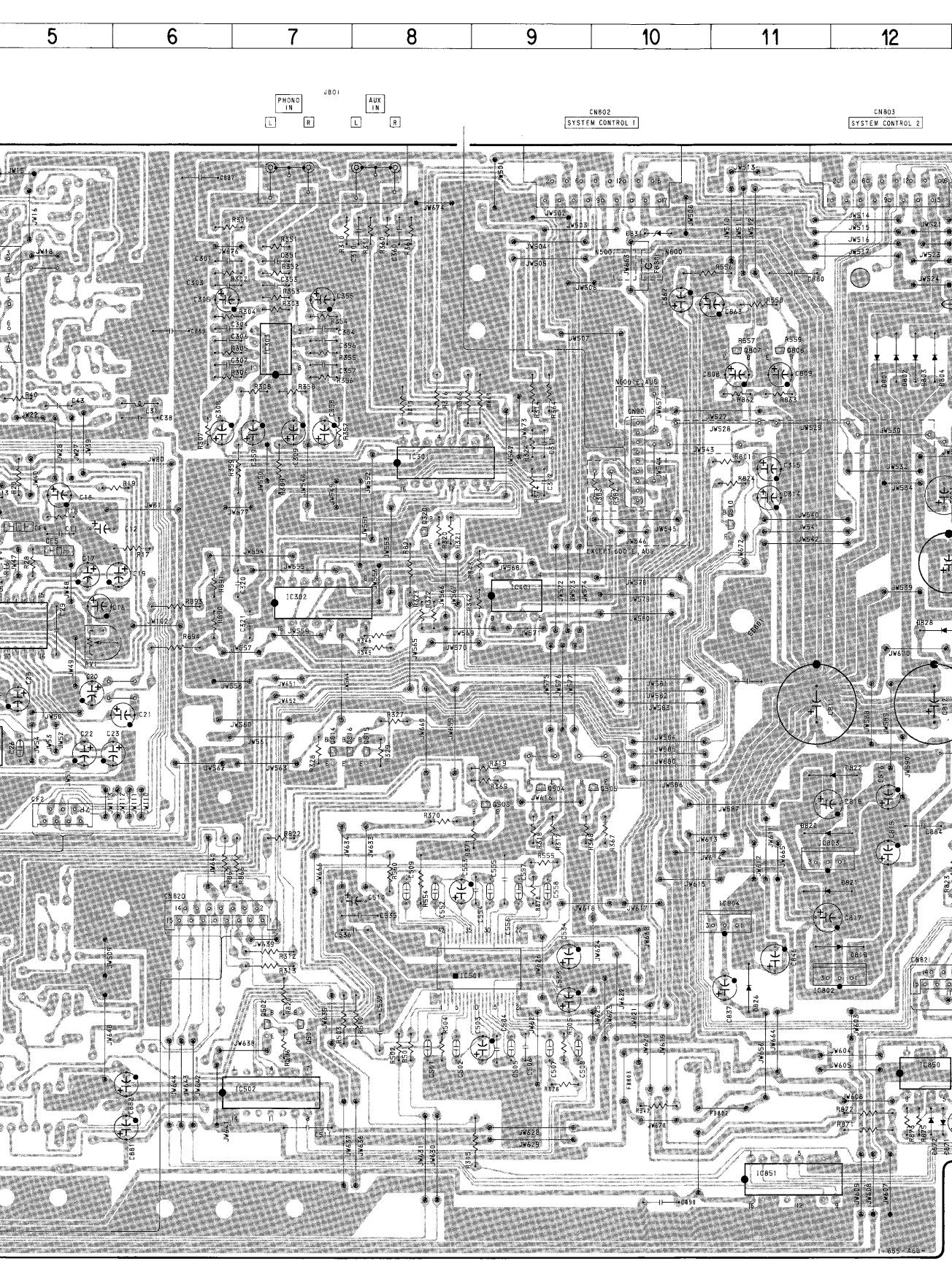
3-2. SCHEMATIC DIAGRAM - MAIN SECTION -



3-3. PRINTED WIRING BOARDS - TUNER, MAIN SECTION -
• AEP, AEP2, UK, German, Italian, East European, CIS model (TYPE A)



• E, Australian, Mexican, PX, Argentine model (TYPE B)



Ref. No.	Location	Ref. No.	Location
D1	D-3	IC302	E-7
D2	D-4 (TYPE A)	IC303	C-7
D3	D-3 (TYPE A)	IC401	E-9
D101	I-3 (TYPE A)	IC501	H-8
D103	I-3 (TYPE A)	IC502	I-6
D104	I-3 (TYPE A)	IC801	H-14
D105	I-3 (TYPE A)	IC802	H-11
D801	C-12	IC803	G-11
D802	C-12	IC804	H-10 (TYPE A)
D803	C-12	IC804	H-11 (TYPE B)
D804	C-12	IC850	I-12
D805	C-13	IC851	J-11
D806	D-13	Q1	E-2
D807	F-14	Q2	E-2
D808	B-14	Q3	E-3 (TYPE A)
D809	C-13	Q4	E-3 (TYPE A)
D810	F-13	Q5	D-2 (TYPE A)
D811	F-13	Q6	D-3 (TYPE B)
D812	F-13	Q7	C-5 (TYPE A)
D815	C-12 (TYPE A)	Q8	D-4 (TYPE A)
D816	C-13	Q9	B-5 (TYPE A)
D817	C-12 (TYPE A)	Q10	B-4 (TYPE A)
D817	C-13 (TYPE B)	Q11	B-5 (TYPE A)
D818	C-13 (TYPE A)	Q12	I-3 (TYPE A)
D819	C-14 (TYPE B)	Q13	J-3 (TYPE A)
D820	G-11	Q14	I-3 (TYPE A)
D821	G-11	Q20	D-8
D822	F-11 (TYPE A)	Q501	H-7
D822	F-12 (TYPE B)	Q502	G-8
D823	B-14	Q503	B-14
D824	B-14	Q504	G-9
D825	B-14	Q505	G-9
D826	H-11	Q801	C-14
D827	E-13	Q802	D-13
D828	D-13	Q803	D-13
D830	D-13	Q804	F-14
D831	B-10	Q805	G-13
D851	I-13	Q806	G-13
D852	I-13	Q807	C-10 (TYPE A)
D853	I-14	Q807	C-11 (TYPE B)
D854	H-14	Q808	C-11
D872	I-12	Q810	D-10
IC3	E-4	Q811	J-6 (TYPE A)
IC51	C-3	Q812	H-4 (TYPE B)
IC101	I-4 (TYPE A)	Q812	J-6 (TYPE A)
IC102	I-2	Q814	H-4 (TYPE B)
IC201	G-3 (TYPE A)	Q815	F-7
IC202	G-2	Q815	F-8 (TYPE A)
IC301	D-8	Q816	F-7

Note:

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : Pattern from the side which enables seeing.

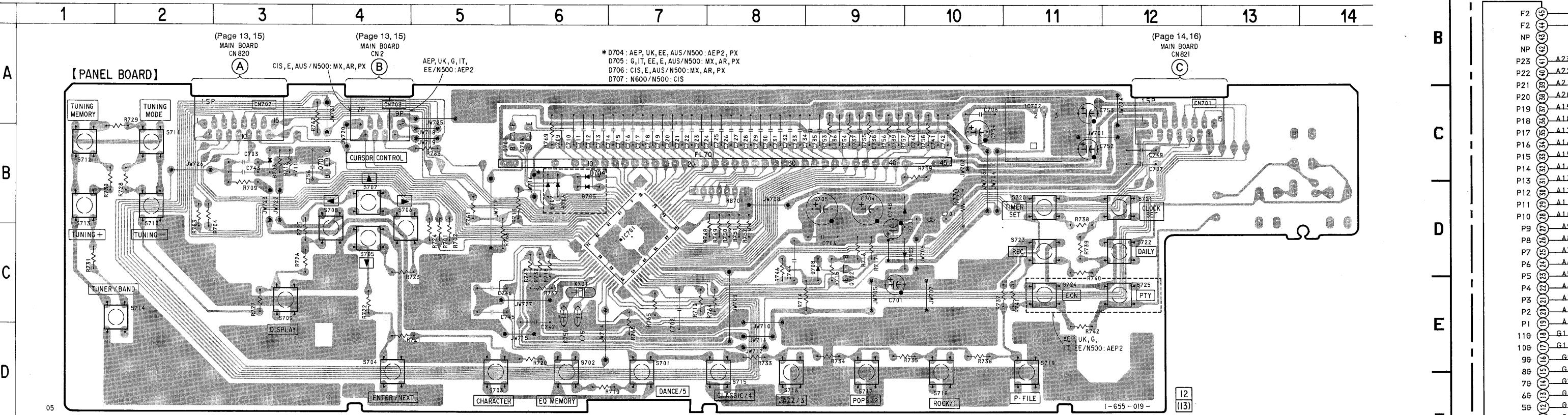
Abbreviation

- G : German
- IT : Italian
- AUS : Australian
- EE : East European
- MX : Mexican
- AR : Argentine

AEP2 : AEP model with power source for PS-LX56P.
N500: STR-N500 N600: STR-N600

3-5. SCHEMATIC DIAGRAM – PANEL SECTION –

3-4. PRINTED WIRING BOARD - PANEL SECTION -

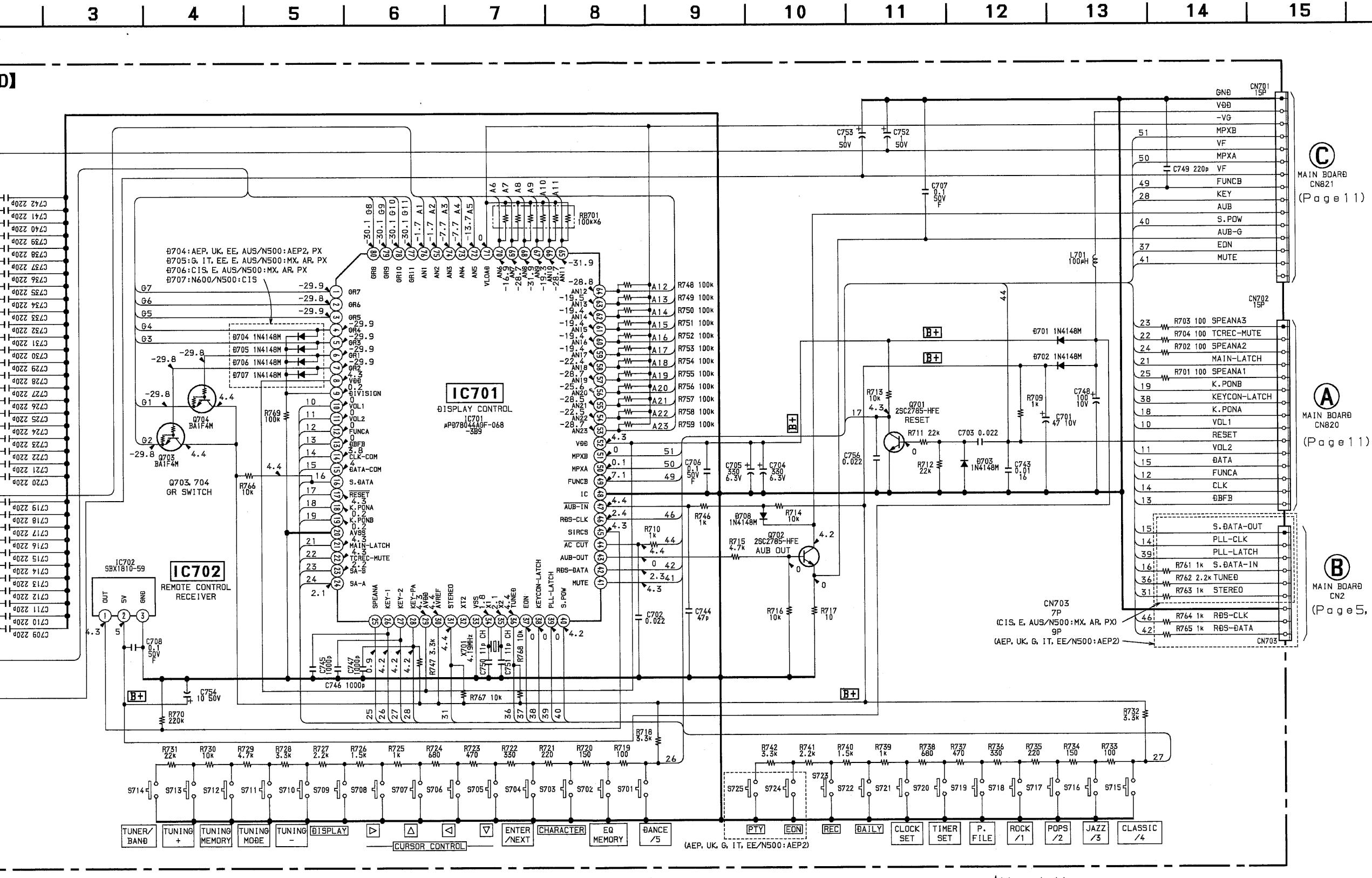


Semiconductor Location

Ref. No.	Location
D701	B-10
D702	B-10
D703	B-3
D704	B-6
D705	B-6
D706	B-6
D707	B-6
D708	C-9
IC701	C-7
IC702	A-11
Q701	B-4
Q702	C-9
Q703	B-6
Q704	B-6

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : Pattern from the side which enables seeing.

Abbreviation
 G : German
 I : Italian
 AUS : Australian
 EE : East European
 MX : Mexican
 AR : Argentine
 AEP2 : AEP model with power source for PS-LX56P.
 N500: STR-N500 N600: STR-N600



μ F unless otherwise noted. pF: $\mu\mu$ F indicated except for electrolytics and 1/4W or less unless otherwise noted.

- Voltages are dc with respect to ground under no-signal conditions.
no mark:
- Voltages are taken with a VOM (Input
Voltage variations may be noted due
to component tolerances.)

• Abbreviations

G :German model. N500:
 IT :Italian model. N600:
 EE :East European model.
 AUS:Australian model.
 MX:Mexican model
 AR:Argentin model.

3-6. IC PIN FUNCTION DESCRIPTION
DISPLAY BOARD IC701 μ PD78044AGF-068-3B9 (DISPLAY CONTROL)

Pin No.	Pin Name	I/O	Function
1~5	GR7~GR3	O	
6, 7	GR1, 2	O	FL grid signal output.
8	VDD	—	Power supply. (+B)
9	DIVISION	I	Division select input.
10	VOL 1	O	
11	VOL 2	O	Volume encoder signal output.
12	FUNCA	O	Input selector control signal output.
13	DBFB	O	DBFB switching signal output.
14	CLK-COM	O	Serial clock output. (LC72130, M62423)
15	DATA-COM	O	Serial data output. (LC72130, M62423)
16	S. DATA	I	Serial data input. (LC72130)
17	RESET	I	Reset signal input.
18	K. PONA	O	
19	K. PONB	O	Not used.
20	AVSS	—	Power supply. (GND)
21	MAIN-LATCH	O	Serial latch output. (M62423)
22	TCREC-MUTE	O	Mute signal for TC REC.
23	SA-B	O	
24	SA-A	O	Not used.
25	SPEANA	I	Control signal input for spectram analizer.
26, 27	KEY-1, 2	I	Key matrix input.
28	KEY-PA	I	Key matrix input.
29	AVDD	—	Power supply. (GND)
30	AVREF	—	A/D converter. Reference terminal.
31	STEREO	I	Stereo detection signal from tuner.
32	XT2	—	Not used.
33	VSS	—	Power supply. (GND)
34	X1	—	
35	X2	—	X'tal (4.19 MHz)
36	TUNED	I	Tuned detection signal from tuner.
37	EON	O	Tuner block power control output.
38	KEYCON-LATCH	O	Latch signal for M65840.
39	PLL-LATCH	O	Latch signal for LC72130.
40	S. POW	O	System power on signal output.

Pin No.	Pin Name	I/O	Function
41	MUTE	O	Mute signal for AMP.
42	RDS-DATA	I	RDS data input. (SAA6579T)
43	AUB-OUT	O	AUBUS output.
44	AC CUT	I	Power detect input terminal.
45	SIRCS	I	SIRCS signal input.
46	RDS-CLK	I	RDS clock input. (SAA6579T)
47	AUB-IN	I	AUBUS input.
48	IC	—	(Connect to GND.)
49	FUNCB	O	Input selector control signal output.
50, 51	MPXA/B	O	Control signal output for MPX.
52	VDD	—	Power supply. (+B)
53-70	AN23-6	O	FL segment signal output.
71	VLOAD	—	Driving power for FL display panel.
72-76	AN5-1	O	FL segment signal output.
77-80	GR11-8	O	FL grid signal output.

SECTION 4

EXPLODED VIEW

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts Example:

KNOB, BALANCE (WHITE) . . . (RED)
 ↑ ↑
 Parts Color Cabinet's Color

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
 Replace only with part number specified.

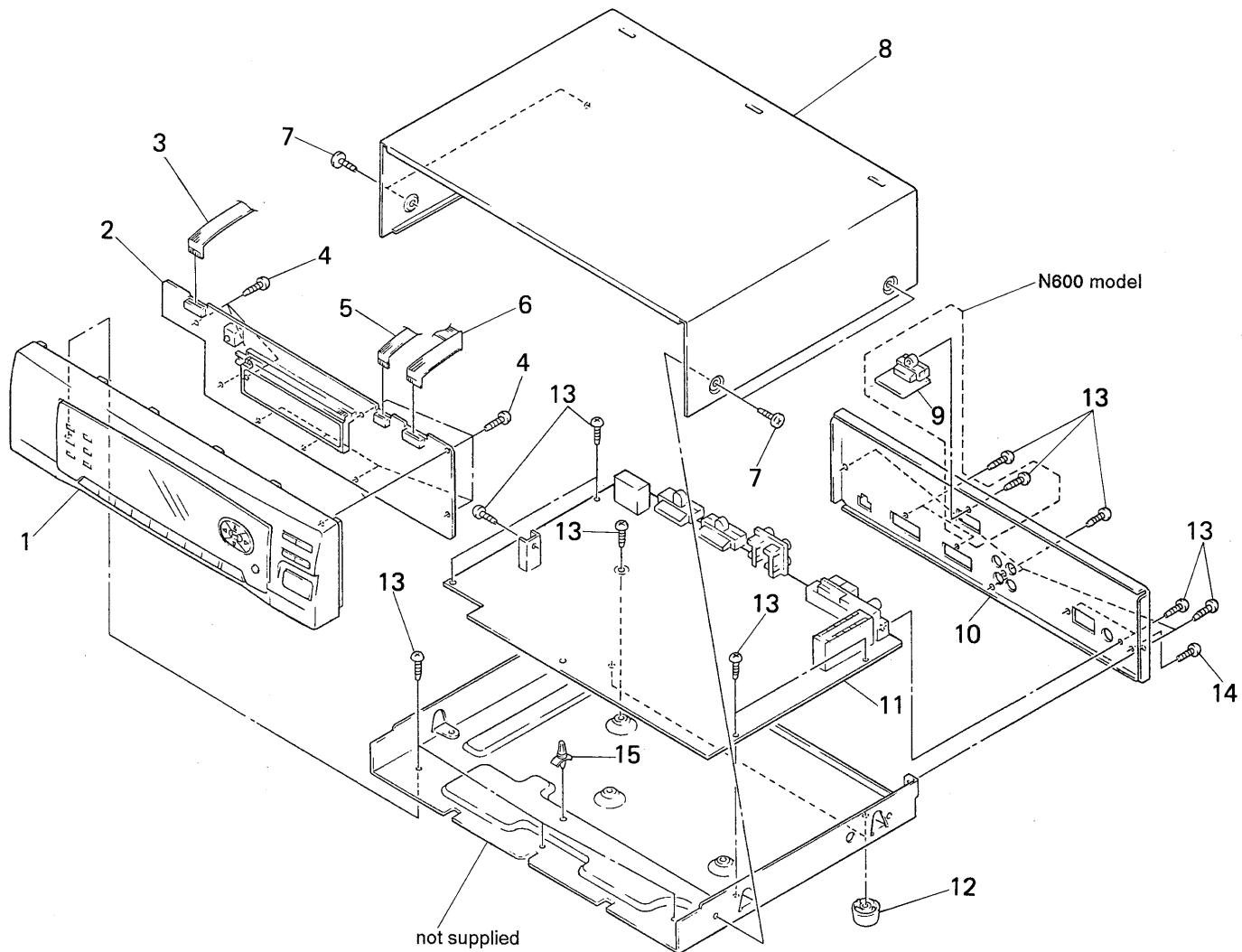
• Abbreviations

IT:Italian
 MX:Mexican

G:German
 AUS:Australian

EE:East European
 AR:Argentin

AEP:AEP model without power source for PS-LX56P.
 AEP2:AEP model with power source for PS-LX56P.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4945-599-1	PANEL ASSY, FRONT (N500:AEP, AEP2, UK, G, IT, EE)		* 10	4-969-784-51	PANEL, BACK (N600:EE, CIS)	
1	X-4945-600-1	PANEL ASSY, FRONT (N500:E, MX, AR)		* 10	4-970-163-02	PANEL, BACK (N500:E)	
1	X-4945-602-1	PANEL ASSY, FRONT (N600:AEP, UK, G, IT, EE)		* 10	4-970-163-11	PANEL, BACK (N500:MX, AUS, PX)	
1	X-4945-620-1	PANEL ASSY, FRONT (N500:CIS, AUS, PX)		* 10	4-970-163-41	PANEL, BACK (N500:AR)	
1	X-4945-965-1	PANEL ASSY, FRONT (N600:CIS, AUS)		* 10	4-970-163-51	PANEL, BACK (N600:E)	
1	X-4946-159-1	PANEL ASSY, FRONT (N600:E)		* 10	4-970-163-61	PANEL, BACK (N600:AUS)	
* 2	A-4377-261-A	PANEL BOARD, COMPLETE (N500:AEP, AEP2, UK)		* 10	4-973-530-01	PANEL, BACK (N500:AEP2)	
* 2	A-4377-818-A	PANEL BOARD, COMPLETE (N600:EE)		* 11	A-4377-390-A	MAIN BOARD, COMPLETE (N500:AEP)	
* 2	A-4377-820-A	PANEL BOARD, COMPLETE (N600:CIS)		* 11	A-4377-391-A	MAIN BOARD, COMPLETE (N500:CIS)	
* 2	A-4377-824-A	PANEL BOARD, COMPLETE (N500:AUS, PX)		* 11	A-4377-392-A	MAIN BOARD, COMPLETE (N500:E)	
* 2	A-4377-827-A	PANEL BOARD, COMPLETE (N500:EE)		* 11	A-4377-394-A	MAIN BOARD, COMPLETE (N600:AEP, UK)	
* 2	A-4377-832-A	PANEL BOARD, COMPLETE (N600:AEP, UK)		* 11	A-4377-819-A	MAIN BOARD, COMPLETE (N600:EE)	
* 2	A-4377-833-A	PANEL BOARD, COMPLETE (N500:E, MX, AR)		* 11	A-4377-821-A	MAIN BOARD, COMPLETE (N600:CIS)	
* 2	A-4377-835-A	PANEL BOARD, COMPLETE (N500:CIS)		* 11	A-4377-825-A	MAIN BOARD, COMPLETE (N500:MX, AR, AUS, PX)	
* 2	A-4377-919-A	PANEL BOARD, COMPLETE (N500:G, IT)		* 11	A-4377-828-A	MAIN BOARD, COMPLETE (N500:EE)	
* 2	A-4377-928-A	PANEL BOARD, COMPLETE (N600:G, IT)		* 11	A-4377-830-A	MAIN BOARD, COMPLETE (N500:UK)	
* 2	A-4378-420-A	PANEL BOARD, COMPLETE (N600:E)		* 11	A-4377-920-A	MAIN BOARD, COMPLETE (N500:G, IT)	
* 2	A-4378-423-A	PANEL BOARD, COMPLETE (N600:AUS)		* 11	A-4377-922-A	MAIN BOARD, COMPLETE (N500:AEP2)	
3	1-769-544-11	WIRE (FLAT TYPE) (15 CORE)		* 11	A-4377-929-A	MAIN BOARD, COMPLETE (N600:G, IT)	
4	4-951-620-01	SCREW (2.6X8), +BVTP		* 11	A-4378-421-A	MAIN BOARD, COMPLETE (N600:E, AUS)	
5	1-769-546-11	WIRE (FLAT TYPE) (7 CORE) (CIS, E, AUS/N500:MX, AR, PX)		12	X-4941-228-1	FOOT ASSY	
5	1-769-547-11	WIRE (FLAT TYPE) (9 CORE) (AEP, UK, G, IT, EE/N500:AEP2)		13	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
6	1-769-545-11	WIRE (FLAT TYPE) (15 CORE)		14	7-682-548-04	SCREW +BVTI 3X8 (S)	
7	3-363-099-01	SCREW (CASE 3 TP2)		15	4-924-098-21	HOLDER, PC BOARD	
8	4-969-777-11	CASE					
* 9	1-655-474-11	CONNECTOR BOARD (N600)					
* 10	4-969-784-02	PANEL, BACK (N500:UK)					
* 10	4-969-784-11	PANEL, BACK (N500:AEP, G, IT)					
* 10	4-969-784-21	PANEL, BACK (N500:EE, CIS)					
* 10	4-969-784-41	PANEL, BACK (N600:AEP, UK, G, IT)					

SECTION 5

ELECTRICAL PARTS LIST

CONNECTOR

MAIN

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS

All resistors are in ohms.

METAL: Metal-film resistor.

METAL OXIDE: Metal oxide-film resistor.

F: nonflammable

● Abbreviations

IT: Italian

G: German

EE: East European

AEP: AEP model without power source for PS-LX56P. /

MX: Mexican

AUS: Australian

AR: Argentin

AEP2: AEP model with power source for PS-LX56P.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u: μ , for example:

uA .. : μ A.. uPA.. : μ PA..

uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..

● CAPACITORS

uF: μ F

● COILS

uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description		Remark		Ref. No.	Part No.	Description		Remark	
*	1-655-474-11	CONNECTOR BOARD	(N600)	*****		C12	1-126-934-11	ELECT	220uF	20%	16V
		< CAPACITOR >				C13	1-162-306-11	CERAMIC	0.01uF	30%	16V
C760	1-164-159-11	CERAMIC	0.1uF	50V	(N600)	C14	1-162-306-11	CERAMIC	0.01uF	30%	16V
C761	1-164-159-11	CERAMIC	0.1uF	50V	(N600)	C15	1-164-159-11	CERAMIC	0.1uF		50V
	< CONNECTOR >					C16	1-126-964-11	ELECT	10uF	20%	50V
	CN813 1-770-249-41 HOUSING, CONNECTOR(PC BOARD)9P (N600)					C17	1-124-902-00	ELECT	0.47uF	20%	50V
	*****					C18	1-124-903-11	ELECT	1uF	20%	50V
	A-4377-390-A MAIN BOARD, COMPLETE (N500:AEP)					C19	1-124-903-11	ELECT	1uF	20%	50V
*	A-4377-922-A	MAIN BOARD, COMPLETE	(N500:AEP2)			C20	1-126-964-11	ELECT	10uF	20%	50V
*	A-4377-830-A	MAIN BOARD, COMPLETE	(N500:UK)			C21	1-126-964-11	ELECT	10uF	20%	50V
*	A-4377-920-A	MAIN BOARD, COMPLETE	(N500:G, IT)			C22	1-126-964-11	ELECT	10uF	20%	50V
*	A-4377-828-A	MAIN BOARD, COMPLETE	(N500:EE)			C23	1-126-964-11	ELECT	10uF	20%	50V
*	A-4377-391-A	MAIN BOARD, COMPLETE	(N500:CIS)			C24	1-137-436-11	FILM	0.0039uF	5%	50V
*	A-4377-392-A	MAIN BOARD, COMPLETE	(N500:E)			C25	1-137-436-11	FILM	0.0039uF	5%	50V
*	A-4377-825-A	MAIN BOARD, COMPLETE	(N500:MX, AR, AUS, PX)			C26	1-136-160-00	FILM	0.039uF	5%	50V
	A-4377-394-A MAIN BOARD, COMPLETE (N600:AEP, UK)					C26	1-136-158-00	FILM	0.027uF	5%	50V
*	A-4377-929-A	MAIN BOARD, COMPLETE	(N600:G, IT)				(E, AUS/N500:MX, AR, PX)				
*	A-4377-819-A	MAIN BOARD, COMPLETE	(N600:EE)			C27	1-136-160-00	FILM	0.039uF	5%	50V
*	A-4377-821-A	MAIN BOARD, COMPLETE	(N600:CIS)				(AEP, UK, G, IT, EE, CIS/N500:AEP2)				
*	A-4378-421-A	MAIN BOARD, COMPLETE	(N600:E, AUS)			C27	1-136-158-00	FILM	0.027uF	5%	50V
	*****					C28	1-124-903-11	ELECT	1uF	20%	50V
	1-537-770-11 TERMINAL BOARD, GROUND (N500:AEP, AEP2, G, IT)					C29	1-162-294-31	CERAMIC	0.001uF	10%	50V
	< CAPACITOR >					C30	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C1	1-162-306-11	CERAMIC	0.01uF	30%	16V	C31	1-126-967-11	ELECT	47uF	20%	16V
C2	1-126-934-11	ELECT	220uF	20%	16V	C32	1-126-111-11	ELECT	3.3uF	20%	50V
C3	1-162-306-11	CERAMIC	0.01uF	30%	16V	C33	1-162-306-11	CERAMIC	0.01uF	30%	16V
C4	1-162-306-11	CERAMIC	0.01uF	30%	16V	C34	1-126-933-11	ELECT	100uF	20%	10V
C5	1-162-306-11	CERAMIC	0.01uF	30%	16V	C35	1-162-306-11	CERAMIC	0.01uF	30%	16V
C6	1-162-306-11	CERAMIC	0.01uF	30%	16V	C38	1-162-211-31	CERAMIC	33PF	5%	50V
C7	1-162-306-11	CERAMIC	0.01uF	30%	16V	C40	1-101-005-00	CERAMIC	0.22uF		50V
C8	1-162-306-11	CERAMIC	0.01uF	30%	16V	C41	1-164-159-11	CERAMIC	0.1uF		50V
C9	1-101-004-00	CERAMIC	0.01uF		50V		(AEP, UK, EE, CIS/N500:AEP2)				
C11	1-162-306-11	CERAMIC	0.01uF	30%	16V	C42	1-162-196-31	CERAMIC	5.6PF	10%	50V
	(EE, CIS, E, AUS/N500:MX, AR, PX)						(AEP, UK, EE, CIS/N500:AEP2)				
	C42 1-162-198-31 CERAMIC 8.2PF 10% 50V (G, IT, E, AUS/N500:MX, AR, PX)					C43	1-162-306-11	CERAMIC	0.01uF	30%	16V
	C43 1-162-306-11 CERAMIC 0.0018uF 10% 50V (AEP, UK, EE, CIS/N500:AEP2)					C44	1-102-120-00	CERAMIC	0.0018uF	10%	50V

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C45	1-162-301-11	CERAMIC	0.001uF	30%	16V (AEP, UK, EE, CIS/N500:AEP2)	C202	1-162-306-11	CERAMIC	0.01uF	30%	16V (AEP, UK, G, IT, EE/N500:AEP2)
C46	1-101-005-00	CERAMIC	0.022uF	50%		C203	1-126-964-11	ELECT	10uF	20%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C51	1-164-031-11	CERAMIC	33PF	5%	50V	C204	1-162-288-31	CERAMIC	330PF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C52	1-164-027-11	CERAMIC	22PF	5%	50V	C205	1-126-964-11	ELECT	10uF	20%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C53	1-162-306-11	CERAMIC	0.01uF	30%	16V	C206	1-124-925-11	ELECT	2.2uF	20%	100V (AEP, UK, G, IT, EE/N500:AEP2)
C54	1-126-967-11	ELECT	47uF	20%	16V	C207	1-162-306-11	CERAMIC	0.01uF	30%	16V (AEP, UK, G, IT, EE/N500:AEP2)
C55	1-162-294-31	CERAMIC	0.001uF	10%	50V	C208	1-162-291-31	CERAMIC	560PF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C56	1-162-306-11	CERAMIC	0.01uF	30%	16V	C209	1-102-527-11	CERAMIC	82PF	5%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C57	1-162-306-11	CERAMIC	0.01uF	30%	16V	C210	1-101-880-00	CERAMIC	47PF	5%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C58	1-162-306-11	CERAMIC	0.01uF	30%	16V	C211	1-162-306-11	CERAMIC	0.01uF	30%	16V (AEP, UK, G, IT, EE/N500:AEP2)
C61	1-124-925-11	ELECT	2.2uF	20%	100V	C212	1-126-964-11	ELECT	10uF	20%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C62	1-164-159-11	CERAMIC	0.1uF		50V	C213	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C63	1-162-306-11	CERAMIC	0.01uF	30%	16V	C214	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)
C65	1-162-306-11	CERAMIC	0.01uF	30%	16V	C215	1-162-306-11	CERAMIC	0.01uF	30%	16V (AEP, UK, G, IT, EE, CIS/N500:AEP2)
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V	C301	1-162-288-31	CERAMIC	330PF	10%	50V
C69	1-126-934-11	ELECT	220uF	20%	16V	C303	1-162-282-31	CERAMIC	100PF	10%	50V
C71	1-136-173-00	FILM	0.47uF	5%	50V (AEP, UK, EE, CIS/N500:AEP2)	C304	1-162-282-31	CERAMIC	100PF	10%	50V
C72	1-161-494-00	CERAMIC	0.022uF		25V (AEP, UK, EE, CIS/N500:AEP2)	C305	1-126-963-11	ELECT	4.7uF	20%	50V
C73	1-161-494-00	CERAMIC	0.022uF		25V (AEP, UK, EE, CIS/N500:AEP2)	C306	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C95	1-124-907-11	ELECT	10uF	20%	50V(CIS)	C307	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C96	1-124-907-11	ELECT	10uF	20%	50V(CIS)	C308	1-124-902-00	ELECT	0.47uF	20%	50V(N500)
C101	1-162-294-31	CERAMIC	0.001uF	10%	50V(CIS)	C309	1-124-464-11	ELECT	0.22uF	20%	50V
C102	1-130-014-00	FILM	470PF	5%	50V(CIS)	C310	1-162-286-21	CERAMIC	47uF	20%	16V
C103	1-124-902-00	ELECT	0.47uF	20%	50V(CIS)	C311	1-162-282-31	CERAMIC	220PF	10%	50V
C104	1-124-902-00	ELECT	0.47uF	20%	50V(CIS)	C312	1-162-282-31	CERAMIC	100PF	10%	50V
C105	1-164-098-11	CERAMIC	0.047uF		12V(CIS)	C314	1-124-903-11	ELECT	1uF	20%	50V
C106	1-124-903-11	ELECT	1uF	20%	50V(CIS)	C315	1-124-903-11	ELECT	1uF	20%	50V
C107	1-162-288-31	CERAMIC	330PF	10%	50V(CIS)	C320	1-162-306-11	CERAMIC	0.01uF	30%	16V
C110	1-130-471-00	MYLAR	0.001uF	5%	50V(CIS)	C321	1-162-306-11	CERAMIC	0.01uF	30%	16V
C111	1-130-471-00	MYLAR	0.001uF	5%	50V(CIS)	C351	1-162-288-31	CERAMIC	330PF	10%	50V
C112	1-130-736-11	FILM	0.01uF	5%	50V(CIS)	C353	1-162-282-31	CERAMIC	100PF	10%	50V
C113	1-130-736-11	FILM	0.01uF	5%	50V(CIS)	C354	1-162-282-31	CERAMIC	100PF	10%	50V
C114	1-124-903-11	ELECT	1uF	20%	50V(CIS)	C355	1-126-963-11	ELECT	4.7uF	20%	50V
C115	1-124-903-11	ELECT	1uF	20%	50V(CIS)	C356	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C116	1-124-903-11	ELECT	1uF	20%	50V(CIS)	C357	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C119	1-104-664-11	ELECT	47uF	20%	16V(CIS)	C358	1-124-902-00	ELECT	0.47uF	20%	50V(N500)
C120	1-162-306-11	CERAMIC	0.01uF	30%	16V(CIS)						
C123	1-162-306-11	CERAMIC	0.01uF	30%	16V(CIS)						
C124	1-162-306-11	CERAMIC	0.01uF	30%	16V(CIS)						
C125	1-104-664-11	ELECT	47uF	20%	16V(CIS)						
C126	1-124-903-11	ELECT	1uF	20%	50V(CIS)						
C127	1-124-903-11	ELECT	1uF	20%	50V(CIS)						
C128	1-104-663-11	ELECT	33uF	20%	16V(CIS)						
C201	1-162-291-31	CERAMIC	560PF	10%	50V (AEP, UK, G, IT, EE/N500:AEP2)						

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark				
C358	1-124-464-11	ELECT	0.22uF	20%	50V	(N600)	C839	1-124-477-11	ELECT	47uF	20%	25V		
C359	1-126-967-11	ELECT	47uF	20%	16V		C840	1-126-967-11	ELECT	47uF	20%	50V		
C360	1-162-286-21	CERAMIC	220PF	10%	50V		C841	1-124-478-11	ELECT	100uF	20%	25V		
C501	1-136-162-00	FILM	0.056uF	5%	50V		C842	1-162-306-11	CERAMIC	0.01uF	30%	16V		
C502	1-136-156-00	FILM	0.018uF	5%	50V		C843	1-126-943-11	ELECT	2200uF	20%	25V		
C503	1-124-903-11	ELECT	1uF	20%	50V		C844	1-124-477-11	ELECT	47uF	20%	25V		
C504	1-162-302-11	CERAMIC	0.0022uF	30%	16V								(N500:AEP2, UK, E)	
C505	1-136-162-00	FILM	0.056uF	5%	50V		C845	1-164-159-11	CERAMIC	0.1uF		50V		
C506	1-162-600-11	CERAMIC	0.0047uF	30%	16V		C846	1-124-477-11	ELECT	47uF	20%	25V		
C507	1-136-169-00	FILM	0.22uF	5%	50V		C851	1-136-177-00	FILM	1uF	5%	50V		
C508	1-136-162-00	FILM	0.056uF	5%	50V		C852	1-136-169-00	FILM	0.22uF	5%	50V		
C509	1-136-162-00	FILM	0.056uF	5%	50V		C853	1-124-903-11	ELECT	1uF	20%	50V		
C510	1-126-964-11	ELECT	10uF	20%	50V		C854	1-136-169-00	FILM	0.22uF	5%	50V		
C511	1-162-306-11	CERAMIC	0.01uF	30%	16V		C855	1-136-162-00	FILM	0.056uF	5%	50V		
C533	1-126-964-11	ELECT	10uF	20%	50V		C856	1-124-903-11	ELECT	1uF	20%	50V		
C534	1-126-964-11	ELECT	10uF	20%	50V		C857	1-136-161-00	FILM	0.047uF	5%	50V		
C535	1-164-159-11	CERAMIC	0.1uF		50V		C858	1-136-153-00	FILM	0.01uF	5%	50V		
C536	1-164-159-11	CERAMIC	0.1uF		50V		C859	1-124-903-11	ELECT	1uF	20%	50V		
C537	1-162-286-21	CERAMIC	220PF	10%	50V		C860	1-130-479-00	MYLAR	0.0047uF	5%	50V		
C552	1-136-156-00	FILM	0.018uF	5%	50V		C861	1-124-903-11	ELECT	1uF	20%	50V		
C553	1-124-903-11	ELECT	1uF	20%	50V		C862	1-126-964-11	ELECT	10uF	20%	50V		
C554	1-162-302-11	CERAMIC	0.0022uF	30%	16V		C863	1-126-964-11	ELECT	10uF	20%	50V		
C555	1-136-162-00	FILM	0.056uF	5%	50V		C871	1-126-964-11	ELECT	10uF	20%	50V		
C556	1-162-600-11	CERAMIC	0.0047uF	30%	16V		C872	1-124-925-11	ELECT	2.2uF	20%	100V		
C557	1-136-169-00	FILM	0.22uF	5%	50V		C880	1-162-294-31	CERAMIC	0.001uF	10%	50V		
C558	1-136-162-00	FILM	0.056uF	5%	50V		C883	1-162-306-11	CERAMIC	0.01uF	30%	16V		
C801	1-124-122-11	ELECT	100uF	20%	50V		C884	1-162-306-11	CERAMIC	0.01uF	30%	16V		
C802	1-128-576-11	ELECT	100uF	20%	63V		C885	1-164-159-11	CERAMIC	0.1uF		50V		
C803	1-162-306-11	CERAMIC	0.01uF	30%	16V								(N500:AEP2, UK, E)	
C804	1-128-552-51	ELECT	47uF	20%	63V		C886	1-162-282-31	CERAMIC	100PF	10%	50V		(N600)
C805	1-124-122-11	ELECT	100uF	20%	50V		C887	1-161-494-00	CERAMIC	0.022uF		25V		
C806	1-126-971-11	ELECT	47uF	20%	50V		C888	1-162-294-31	CERAMIC	0.001uF	10%	50V		
C807	1-162-306-11	CERAMIC	0.01uF	30%	16V		C890	1-164-159-11	CERAMIC	0.1uF		50V		(N500:E, MX, AR, AU, PX)
C808	1-124-925-11	ELECT	2.2uF	20%	100V									
C809	1-124-925-11	ELECT	2.2uF	20%	100V		CF1	1-567-389-11	FILTER, CERAMIC					
C811	1-126-944-11	ELECT	3300uF	20%	25V		CF2	1-760-393-11	FILTER, CERAMIC (AEP, UK, G, IT/N500:AEP2)					
C812	1-126-944-11	ELECT	3300uF	20%	25V		CF3	1-760-393-11	FILTER, CERAMIC (AEP, UK, G, IT/N500:AEP2)					
C813	1-101-004-00	CERAMIC	0.01uF		50V		CF3	1-567-389-11	FILTER, CERAMIC (EE, CIS, E, AUS/N500:MX, AR, PX)					
C814	1-101-004-00	CERAMIC	0.01uF		50V		CF4	1-760-220-11	FILTER, CERAMIC (10.7MHz)					
C815	1-126-964-11	ELECT	10uF	20%	50V		CF5	1-527-981-00	FILTER, CERAMIC (450KHz)					
C816	1-126-964-11	ELECT	10uF	20%	50V		CF6	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)					
C817	1-126-933-11	ELECT	100uF	20%	16V									
C818	1-126-933-11	ELECT	100uF	20%	16V									
C831	1-126-964-11	ELECT	10uF	20%	50V									
C832	1-124-463-00	ELECT	0.1uF	20%	50V		* CN2	1-568-828-11	SOCKET, CONNECTOR 9P					
C835	1-126-964-11	ELECT	10uF	20%	50V								(AEP, UK, G, IT, EE/N500:AEP2)	
C837	1-126-933-11	ELECT	100uF	20%	10V		* CN2	1-568-826-11	SOCKET, CONNECTOR 7P					(CIS, E, AUS/N500:MX, AR, PX)
C838	1-124-122-11	ELECT	100uF	20%	50V									

MAIN

Ref. No.	Part No.	Description	Remark
* CN801	1-568-936-11	PIN, CONNECTOR 9P (N600)	
CN802	1-764-017-11	HOUSING, CONNECTOR(PC BOARD)17P	
CN803	1-770-248-31	HOUSING, CONNECTOR(PC BOARD)16P	
* CN805	1-566-210-11	PIN, CONNECTOR 3P (POWER SOURCE) (N500:AEP2, UK, E)	
* CN820	1-568-834-11	SOCKET, CONNECTOR 15P	
* CN821	1-568-834-11	SOCKET, CONNECTOR 15P	

< TRIMMER >

CT101 1-141-260-00 CAP, TRIMMER 50PF (CIS)

< DIODE >

D1	8-719-987-63	DIODE	1N4148M
D2	8-719-987-63	DIODE	1N4148M (CIS)
D3	8-719-987-63	DIODE	1N4148M (CIS)
D101	8-719-987-63	DIODE	1N4148M (CIS)
D103	8-719-987-63	DIODE	1N4148M (CIS)
D104	8-719-987-63	DIODE	1N4148M (CIS)
D105	8-719-987-63	DIODE	1N4148M (CIS)
D801	8-719-024-99	DIODE	11ES2-NTA2B
D802	8-719-024-99	DIODE	11ES2-NTA2B
D803	8-719-024-99	DIODE	11ES2-NTA2B
D804	8-719-024-99	DIODE	11ES2-NTA2B
D805	8-719-024-99	DIODE	11ES2-NTA2B
D806	8-719-024-99	DIODE	11ES2-NTA2B
D807	8-719-934-22	DIODE	HZS30-2L
D808	8-719-933-48	DIODE	HZS7B3L
D809	8-719-987-63	DIODE	1N4148M
D810	8-719-024-99	DIODE	11ES2-NTA2B
D811	8-719-024-99	DIODE	11ES2-NTA2B
D812	8-719-001-42	DIODE	UZL-11M1
D815	8-719-024-99	DIODE	11ES2-NTA2B
D816	8-719-024-99	DIODE	11ES2-NTA2B
D817	8-719-024-99	DIODE	11ES2-NTA2B
D818	8-719-024-99	DIODE	11ES2-NTA2B
D819	8-719-024-99	DIODE	11ES2-NTA2B
D820	8-719-024-99	DIODE	11ES2-NTA2B
D821	8-719-024-99	DIODE	11ES2-NTA2B
D822	8-719-024-99	DIODE	11ES2-NTA2B
D823	8-719-024-99	DIODE	11ES2-NTA2B (N500:AEP2, UK, E)
D824	8-719-024-99	DIODE	11ES2-NTA2B (N500:AEP2, UK, E)
D825	8-719-024-99	DIODE	11ES2-NTA2B (N500:AEP2, UK, E)

D826	8-719-024-99	DIODE	11ES2-NTA2B
D827	8-719-024-99	DIODE	11ES2-NTA2B
D828	8-719-024-99	DIODE	11ES2-NTA2B
D829	8-719-024-99	DIODE	11ES2-NTA2B
D830	8-719-024-99	DIODE	11ES2-NTA2B
D831	8-719-000-84	DIODE	UZL-7M1
D851	8-719-987-63	DIODE	1N4148M

Ref. No.	Part No.	Description	Remark
D852	8-719-987-63	DIODE	1N4148M
D853	8-719-987-63	DIODE	1N4148M
D854	8-719-987-63	DIODE	1N4148M
D871	8-719-987-63	DIODE	1N4148M
D872	8-719-815-85	DIODE	1S1585

< TERMINAL >

EB801 1-537-770-11 TERMINAL BOARD, GROUND
(UK, EE, CIS, E, AUS, /N500:MX, AR, PX)

< FERRITE BEAD >

FB801	1-412-473-21	INDUCTOR	OUH (N600)
			< FRONT END >
FE1	1-693-253-21	FRONT END (4 GANG)	(AEP, UK, G, IT/N500:AEP2)
FE1	1-693-244-21	FRONT END (3 GANG) (EE, CIS)	
FE1	1-693-090-51	FRONT END (FM) (2 GANG)	(E, AUS/N500:MX, AR, PX)

< IC >

IC3	8-759-176-03	IC	LA1835
IC51	8-759-288-54	IC	LC72130
IC101	8-759-063-04	IC	IR3R42 (CIS)
IC102	8-759-140-53	IC	uPD4053BC (CIS)
IC201	8-759-634-51	IC	M5218AP (AEP, UK, G, IT, EE/N500:AEP2)
IC202	8-759-169-99	IC	SAA6579 (AEP, UK, G, IT, EE/N500:AEP2)
IC301	8-759-000-48	IC	MC14052BCP
IC302	8-759-140-53	IC	uPD4053BC
IC303	8-759-634-51	IC	M5218AP
IC401	8-759-634-51	IC	M5218AP
IC501	8-759-291-98	IC	M62423FP
IC502	8-759-000-49	IC	MC14066BCP
IC801	8-759-820-13	IC	L78MR06
IC802	8-759-604-86	IC	M5F7807L
IC803	8-759-604-90	IC	M5F7907L
IC804	8-759-231-53	IC	TA7805S
IC850	8-759-634-51	IC	M5218AP
IC851	8-759-000-48	IC	MC14052BCP

< IFT >

IFT1	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
			< JACK >
* J801	1-580-912-11	JACK, PIN 4P(PHONO/AUX IN)	(N600:AEP, G, IT/N500)
J801	1-580-905-11	JACK, PIN (PHONO/AUX IN)	(N600:UK, EE, CIS, E, AUS)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
< COIL >											
L1	1-407-500-00	INDUCTOR	4.7mH (AEP, UK, EE, CIS/N500:AEP2)	Q811	8-729-119-78	TRANSISTOR	2SC2785-HFE				
L1	1-410-688-31	INDUCTOR	1.5mH (G, IT, E, AUS/N500:MX, AR, PX)	Q812	8-729-119-78	TRANSISTOR	2SC2785-HFE				
L2	1-410-524-41	INDUCTOR	220uH (AEP/N500:AEP2)	Q814	8-729-422-57	TRANSISTOR	UN4111				
L2	1-410-525-11	INDUCTOR	220uH (UK, EE, CIS)	Q815	8-729-900-80	TRANSISTOR	DTC114ES				
L31	1-414-142-11	INDUCTOR	1uH	Q816	8-729-141-30	TRANSISTOR	2SC3623A-LK (EXCEPT CIS)				
L101	1-409-497-11	COIL (FILTER) (CIS)		< RESISTOR >							
< FILTER >											
LPF1	1-239-597-11	FILTER, LOW PASS		R4	1-249-401-11	CARBON	47 5% 1/4W				
LPF2	1-239-597-11	FILTER, LOW PASS		R5	1-249-411-11	CARBON	330 5% 1/4W				
< TRANSISTOR >				R6	1-249-433-11	CARBON	22K 5% 1/4W				
Q1	8-729-230-99	TRANSISTOR	2SC2669-0Y	R7	1-249-411-11	CARBON	330 5% 1/4W				
Q2	8-729-230-99	TRANSISTOR	2SC2669-0Y	R8	1-249-411-11	CARBON	330 5% 1/4W				
Q3	8-729-230-99	TRANSISTOR	2SC2669-0Y	R9	1-249-433-11	CARBON	22K 5% 1/4W				
Q4	8-729-230-99	TRANSISTOR	2SC2669-0Y	R10	1-249-411-11	CARBON	330 5% 1/4W				
Q5	8-729-422-57	TRANSISTOR	UN4111	R11	1-249-433-11	CARBON	22K 5% 1/4W				
Q6	8-729-119-76	TRANSISTOR	2SA1175-HFE (AEP, UK, EE, CIS/N500:AEP2)	(AEP, UK, G, IT, EE, CIS/N500:AEP2)							
Q7	8-729-119-76	TRANSISTOR	2SA1175-HFE (AEP, UK, EE, CIS/N500:AEP2)	R11	1-249-411-11	CARBON	330 5% 1/4W				
Q8	8-729-900-80	TRANSISTOR	DTC114ES (AEP, UK, EE, CIS/N500:AEP2)	(E, AUS/N500:MX, AR, PX)							
Q9	8-729-900-80	TRANSISTOR	DTC114ES (AEP, UK, EE, CIS/N500:AEP2)	R12	1-249-411-11	CARBON	330 5% 1/4W				
Q10	8-729-900-80	TRANSISTOR	DTC114ES (AEP, UK, EE, CIS/N500:AEP2)	R13	1-249-411-11	CARBON	330 5% 1/4W				
Q11	8-729-900-80	TRANSISTOR	DTC114ES (AEP, UK, EE, CIS/N500:AEP2)	R14	1-249-433-11	CARBON	22K 5% 1/4W				
Q101	8-729-422-57	TRANSISTOR	UN4111 (CIS)	(AEP, UK, G, IT, EE, CIS/N500:AEP2)							
Q102	8-729-900-80	TRANSISTOR	DTC114ES (CIS)	R15	1-249-405-11	CARBON	100 5% 1/4W				
Q103	8-729-900-80	TRANSISTOR	DTC114ES (CIS)	R16	1-249-442-11	CARBON	510 5% 1/4W				
Q320	8-729-900-80	TRANSISTOR	DTC114ES	R17	1-249-403-11	CARBON	68 5% 1/4W				
Q501	8-729-900-80	TRANSISTOR	DTC114ES	R18	1-249-423-11	CARBON	3.3K 5% 1/4W				
Q502	8-729-422-57	TRANSISTOR	UN4111	R19	1-249-441-11	CARBON	100K 5% 1/4W				
Q503	8-729-422-57	TRANSISTOR	UN4111	R20	1-249-429-11	CARBON	10K 5% 1/4W				
Q504	8-729-119-78	TRANSISTOR	2SC2785-HFE	R25	1-249-429-11	CARBON	10K 5% 1/4W				
Q505	8-729-119-78	TRANSISTOR	2SC2785-HFE	R26	1-249-429-11	CARBON	10K 5% 1/4W				
Q801	8-729-111-29	TRANSISTOR	2SD1616A-K	(AEP, UK, EE, CIS/N500:AEP2)							
Q802	8-729-801-84	TRANSISTOR	2SB1013-4 (N600)	R28	1-249-401-11	CARBON	47 5% 1/4W				
Q803	8-729-119-78	TRANSISTOR	2SC2785-HFE	R40	1-249-399-11	CARBON	33 5% 1/4W				
Q804	8-729-030-19	TRANSISTOR	2SB1640	R41	1-249-429-11	CARBON	10K 5% 1/4W				
Q805	8-729-209-15	TRANSISTOR	2SD2012	(AEP, UK, EE, CIS/N500:AEP2)							
Q806	8-729-900-80	TRANSISTOR	DTC114ES	R42	1-249-429-11	CARBON	10K 5% 1/4W				
Q807	8-729-141-30	TRANSISTOR	2SC3623A-LK	(AEP, UK, EE, CIS/N500:AEP2)							
Q808	8-729-141-30	TRANSISTOR	2SC3623A-LK	R43	1-249-441-11	CARBON	100K 5% 1/4W				
Q810	8-729-422-57	TRANSISTOR	UN4111	R44	1-249-425-11	CARBON	4.7K 5% 1/4W				
				(AEP, UK, EE, CIS/N500:AEP2)							
				R45	1-249-437-11	CARBON	47K 5% 1/4W				
				R46	1-247-903-00	CARBON	1M 5% 1/4W				
				(AEP, UK, EE, CIS/N500:AEP2)							
				R47	1-249-433-11	CARBON	22K 5% 1/4W				
				(AEP, UK, EE, CIS/N500:AEP2)							
				R48	1-249-437-11	CARBON	47K 5% 1/4W				
				(AEP, UK, EE, CIS/N500:AEP2)							
				R50	1-249-401-11	CARBON	47 5% 1/4W				
				R52	1-249-429-11	CARBON	10K 5% 1/4W				
				R53	1-249-423-11	CARBON	3.3K 5% 1/4W				
				(AEP, UK, EE, CIS/N500:AEP2)							
				R55	1-249-417-11	CARBON	1K 5% 1/4W				
				R56	1-249-417-11	CARBON	1K 5% 1/4W				
				(AEP, UK, EE, CIS/N500:AEP2)							

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R57	1-249-417-11	CARBON	1K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R303	1-249-437-11	CARBON	47K 5% 1/4W
R58	1-249-417-11	CARBON	1K 5% 1/4W	R304	1-249-416-11	CARBON	820 5% 1/4W
R59	1-249-417-11	CARBON	1K 5% 1/4W	R305	1-247-897-11	CARBON	560K 5% 1/4W
R60	1-249-405-11	CARBON	100 5% 1/4W	R306	1-249-437-11	CARBON	47K 5% 1/4W
R61	1-249-423-11	CARBON	3. 3K 5% 1/4W	R307	1-249-422-11	CARBON	2. 7K 5% 1/4W (N500)
R62	1-249-425-11	CARBON	4. 7K 5% 1/4W	R307	1-249-409-11	CARBON	220 5% 1/4W (N600)
R63	1-249-425-11	CARBON	4. 7K 5% 1/4W	R308	1-249-427-11	CARBON	6. 8K 5% 1/4W (N500)
R64	1-249-425-11	CARBON	4. 7K 5% 1/4W	R308	1-249-441-11	CARBON	100K 5% 1/4W (N600)
R65	1-247-807-31	CARBON	100 5% 1/4W	R309	1-249-409-11	CARBON	220 5% 1/4W
R66	1-249-425-11	CARBON	4. 7K 5% 1/4W	R310	1-249-425-11	CARBON	4. 7K 5% 1/4W (N500)
R71	1-249-423-11	CARBON	3. 3K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R310	1-249-417-11	CARBON	1K 5% 1/4W (N600)
R72	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R311	1-249-431-11	CARBON	15K 5% 1/4W (N500)
R73	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R311	1-249-441-11	CARBON	100K 5% 1/4W (N600)
R74	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R312	1-249-417-11	CARBON	1K 5% 1/4W
R75	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, UK, EE, CIS/N500:AEP2)	R313	1-249-417-11	CARBON	1K 5% 1/4W
R101	1-249-432-11	CARBON	18K 5% 1/4W (CIS)	R314	1-249-417-11	CARBON	1K 5% 1/4W
R102	1-249-435-11	CARBON	33K 5% 1/4W (CIS)	R315	1-247-807-31	CARBON	100 5% 1/4W
R103	1-249-427-11	CARBON	6. 8K 5% 1/4W (CIS)	R316	1-249-417-11	CARBON	1K 5% 1/4W
R104	1-247-858-11	CARBON	13K 5% 1/4W (CIS)	R317	1-249-417-11	CARBON	1K 5% 1/4W
R105	1-249-417-11	CARBON	1K 5% 1/4W (CIS)	R318	1-249-419-11	CARBON	1. 5K 5% 1/4W
R106	1-249-417-11	CARBON	1K 5% 1/4W (CIS)	R319	1-249-417-11	CARBON	1K 5% 1/4W
R107	1-249-441-11	CARBON	100K 5% 1/4W (CIS)	R320	1-249-429-11	CARBON	10K 5% 1/4W
R108	1-249-440-11	CARBON	82K 5% 1/4W (CIS)	R321	1-249-429-11	CARBON	10K 5% 1/4W
R109	1-249-437-11	CARBON	47K 5% 1/4W (CIS)	R322	1-249-429-11	CARBON	10K 5% 1/4W
R110	1-249-429-11	CARBON	10K 5% 1/4W (CIS)	R323	1-249-429-11	CARBON	10K 5% 1/4W
R111	1-249-429-11	CARBON	10K 5% 1/4W (CIS)	R324	1-249-423-11	CARBON	3. 3K 5% 1/4W (N500)
R114	1-249-426-11	CARBON	5. 6K 5% 1/4W (CIS)	R324	1-249-431-11	CARBON	15K 5% 1/4W (N600)
R115	1-249-426-11	CARBON	5. 6K 5% 1/4W (CIS)	R327	1-249-417-11	CARBON	1K 5% 1/4W (EXCEPT CIS)
R116	1-249-441-11	CARBON	100K 5% 1/4W (CIS)	R328	1-249-429-11	CARBON	10K 5% 1/4W
R117	1-249-441-11	CARBON	100K 5% 1/4W (CIS)	R329	1-249-429-11	CARBON	10K 5% 1/4W
R118	1-249-429-11	CARBON	10K 5% 1/4W (CIS)	R342	1-249-441-11	CARBON	100K 5% 1/4W
R119	1-249-429-11	CARBON	10K 5% 1/4W (CIS)	R343	1-249-441-11	CARBON	100K 5% 1/4W
R121	1-249-434-11	CARBON	27K 5% 1/4W (CIS)	R345	1-247-807-31	CARBON	100 5% 1/4W
R122	1-249-441-11	CARBON	100K 5% 1/4W (CIS)	R346	1-247-807-31	CARBON	100 5% 1/4W
R201	1-249-441-11	CARBON	100K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R351	1-249-417-11	CARBON	1K 5% 1/4W
R202	1-249-441-11	CARBON	100K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R352	1-249-417-11	CARBON	1K 5% 1/4W
R203	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R353	1-249-437-11	CARBON	47K 5% 1/4W
R204	1-249-426-11	CARBON	5. 6K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R354	1-249-416-11	CARBON	820 5% 1/4W
R205	1-247-807-31	CARBON	100 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R355	1-247-897-11	CARBON	560K 5% 1/4W
R206	1-249-421-11	CARBON	2. 2K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R356	1-249-437-11	CARBON	47K 5% 1/4W
R301	1-249-417-11	CARBON	1K 5% 1/4W (AEP, UK, G, IT, EE/N500:AEP2)	R357	1-249-422-11	CARBON	2. 7K 5% 1/4W (N500)
R302	1-249-417-11	CARBON	1K 5% 1/4W	R357	1-249-409-11	CARBON	220 5% 1/4W (N600)
				R358	1-249-427-11	CARBON	6. 8K 5% 1/4W (N500)
				R358	1-249-441-11	CARBON	100K 5% 1/4W (N600)
				R359	1-249-409-11	CARBON	220 5% 1/4W
				R360	1-249-425-11	CARBON	4. 7K 5% 1/4W (N500)
				R360	1-249-417-11	CARBON	1K 5% 1/4W (N600)
				R361	1-249-431-11	CARBON	15K 5% 1/4W (N500)

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark			
R361	1-249-441-11	CARBON	100K	5%	1/4W	(N600)	▲R842	1-212-873-11	FUSIBLE	47	5%	1/4W F
R364	1-249-417-11	CARBON	1K	5%	1/4W		▲R843	1-212-873-11	FUSIBLE	47	5%	1/4W F (N600)
R366	1-249-417-11	CARBON	1K	5%	1/4W		R844	1-249-429-11	CARBON	10K	5%	1/4W
R367	1-249-417-11	CARBON	1K	5%	1/4W		R851	1-249-416-11	CARBON	820	5%	1/4W
R368	1-249-419-11	CARBON	1.5K	5%	1/4W		R852	1-249-429-11	CARBON	10K	5%	1/4W
R369	1-249-417-11	CARBON	1K	5%	1/4W		R853	1-249-441-11	CARBON	100K	5%	1/4W
R370	1-249-441-11	CARBON	100K	5%	1/4W		R854	1-249-417-11	CARBON	1K	5%	1/4W
R371	1-247-883-00	CARBON	150K	5%	1/4W		R855	1-249-429-11	CARBON	10K	5%	1/4W
R374	1-249-423-11	CARBON	3.3K	5%	1/4W	(N500)	R856	1-249-441-11	CARBON	100K	5%	1/4W
R374	1-249-431-11	CARBON	15K	5%	1/4W	(N600)	R857	1-249-417-11	CARBON	1K	5%	1/4W
R382	1-249-401-11	CARBON	47	5%	1/4W	(N600)	R858	1-249-430-11	CARBON	12K	5%	1/4W
R383	1-249-401-11	CARBON	47	5%	1/4W	(N600)	R859	1-249-441-11	CARBON	100K	5%	1/4W
R501	1-249-417-11	CARBON	1K	5%	1/4W		R860	1-249-429-11	CARBON	10K	5%	1/4W
R502	1-249-417-11	CARBON	1K	5%	1/4W		R861	1-249-441-11	CARBON	100K	5%	1/4W
R503	1-249-417-11	CARBON	1K	5%	1/4W		R862	1-249-423-11	CARBON	3.3K	5%	1/4W
R504	1-249-441-11	CARBON	100K	5%	1/4W	(N500)	R863	1-249-423-11	CARBON	3.3K	5%	1/4W
R504	1-249-433-11	CARBON	22K	5%	1/4W	(N600)	R864	1-249-429-11	CARBON	10K	5%	1/4W
R505	1-249-426-11	CARBON	5.6K	5%	1/4W		R865	1-249-429-11	CARBON	10K	5%	1/4W
R506	1-249-441-11	CARBON	100K	5%	1/4W		R866	1-249-417-11	CARBON	1K	5%	1/4W
R510	1-249-417-11	CARBON	1K	5%	1/4W	(N500)	R867	1-249-417-11	CARBON	1K	5%	1/4W
R510	1-249-423-11	CARBON	3.3K	5%	1/4W	(N600)	R869	1-249-429-11	CARBON	10K	5%	1/4W (N500)
R554	1-249-441-11	CARBON	100K	5%	1/4W	(N500)	R871	1-249-433-11	CARBON	22K	5%	1/4W
R554	1-249-433-11	CARBON	22K	5%	1/4W	(N600)	R872	1-249-433-11	CARBON	22K	5%	1/4W
R555	1-249-426-11	CARBON	5.6K	5%	1/4W		R873	1-249-441-11	CARBON	100K	5%	1/4W
R556	1-249-417-11	CARBON	1K	5%	1/4W		R874	1-247-807-31	CARBON	100	5%	1/4W
R557	1-247-887-00	CARBON	220K	5%	1/4W		R875	1-249-435-11	CARBON	33K	5%	1/4W
R558	1-249-417-11	CARBON	1K	5%	1/4W		R876	1-249-417-11	CARBON	1K	5%	1/4W
R559	1-247-887-00	CARBON	220K	5%	1/4W		R878	1-249-423-11	CARBON	3.3K	5%	1/4W
R560	1-249-417-11	CARBON	1K	5%	1/4W	(N500)	R890	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R560	1-249-423-11	CARBON	3.3K	5%	1/4W	(N600)	R890	1-249-425-11	CARBON	4.7K	5%	1/4W (N600)
R801	1-249-441-11	CARBON	100K	5%	1/4W		R891	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R805	1-249-421-11	CARBON	2.2K	5%	1/4W		R891	1-249-425-11	CARBON	4.7K	5%	1/4W (N600)
▲R806	1-212-869-00	FUSIBLE	33	5%	1/4W	F	R893	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R807	1-260-070-11	CARBON	3.3	5%	1/2W		R893	1-249-417-11	CARBON	1K	5%	1/4W (N600)
R808	1-215-871-11	METAL OXIDE	2.2K	5%	1W		R894	1-249-423-11	CARBON	3.3K	5%	1/4W (N500)
R810	1-249-429-11	CARBON	10K	5%	1/4W		R894	1-249-417-11	CARBON	1K	5%	1/4W (N600)
R811	1-249-429-11	CARBON	10K	5%	1/4W		< COMPOSITION CIRCUIT BLOCK >					
R812	1-249-429-11	CARBON	10K	5%	1/4W	(N600)	RB1	1-239-876-11	ENCAPSULATED COMPONENT			
R813	1-249-429-11	CARBON	10K	5%	1/4W	(N600)						
R814	1-249-429-11	CARBON	10K	5%	1/4W		RB1	1-239-260-11	ENCAPSULATED COMPONENT			
R815	1-249-429-11	CARBON	10K	5%	1/4W							
R816	1-249-441-11	CARBON	100K	5%	1/4W		RB1	1-239-260-11	ENCAPSULATED COMPONENT			
R819	1-249-429-11	CARBON	10K	5%	1/4W	(N500)						
R820	1-249-417-11	CARBON	1K	5%	1/4W		RB2	1-236-463-11	ENCAPSULATED COMPONENT			
R821	1-249-417-11	CARBON	1K	5%	1/4W							
R822	1-249-417-11	CARBON	1K	5%	1/4W		RB2	1-236-463-11	ENCAPSULATED COMPONENT			
R823	1-249-417-11	CARBON	1K	5%	1/4W							
R824	1-249-417-11	CARBON	1K	5%	1/4W							
R828	1-249-423-11	CARBON	3.3K	5%	1/4W							

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

MAIN **PANEL**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
RV102	1-238-599-11	RES, ADJ, CARBON 4.7K(CIS)		C708	1-164-159-11	CERAMIC	0.1uF 50V
		< RELAY >		C709	1-162-286-21	CERAMIC	220PF 10% 50V
RY801	1-755-067-11	RELAY		C710	1-162-286-21	CERAMIC	220PF 10% 50V
		< TERMINAL >		C711	1-162-286-21	CERAMIC	220PF 10% 50V
TM1	1-537-488-11	TERMINAL BOARD (ANT) (AEP, UK, G, IT, EE, CIS/N500:AEP2)		C712	1-162-286-21	CERAMIC	220PF 10% 50V
TM1	1-537-238-21	TERMINAL BOARD (E, AUS/N500:MX, AR, PX)		C713	1-162-286-21	CERAMIC	220PF 10% 50V
		< TEST PIN >		C714	1-162-286-21	CERAMIC	220PF 10% 50V
* TP101	1-560-061-00	PIN, CONNECTOR 3P (CIS)		C715	1-162-286-21	CERAMIC	220PF 10% 50V
* TP102	1-560-061-00	PIN, CONNECTOR 3P (CIS)		C716	1-162-286-21	CERAMIC	220PF 10% 50V
		< VIBRATOR >		C717	1-162-286-21	CERAMIC	220PF 10% 50V
X201	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz) (AEP, UK, G, IT, EE/N500:AEP2)		C718	1-162-286-21	CERAMIC	220PF 10% 50V
		< VIBRATOR >		C719	1-162-286-21	CERAMIC	220PF 10% 50V
XT51	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)		C720	1-162-286-21	CERAMIC	220PF 10% 50V

*	A-4377-261-A	PANEL BOARD, COMPLETE (N500:AEP, AEP2, UK)		C721	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-824-A	PANEL BOARD, COMPLETE (N500:AUS, PX)		C722	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-827-A	PANEL BOARD, COMPLETE (N500:EE)		C723	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-833-A	PANEL BOARD, COMPLETE (N500:E, MX, AR)		C724	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-835-A	PANEL BOARD, COMPLETE (N500:CIS)		C725	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-919-A	PANEL BOARD, COMPLETE (N500:G, IT)		C726	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-832-A	PANEL BOARD, COMPLETE (N600:AEP, UK)		C727	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4378-423-A	PANEL BOARD, COMPLETE (N600:AUS)		C728	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-818-A	PANEL BOARD, COMPLETE (N600:EE)		C729	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4378-420-A	PANEL BOARD, COMPLETE (N600:E)		C730	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-820-A	PANEL BOARD, COMPLETE (N600:CIS)		C731	1-162-286-21	CERAMIC	220PF 10% 50V
*	A-4377-928-A	PANEL BOARD, COMPLETE (N600:G, IT)		C732	1-162-286-21	CERAMIC	220PF 10% 50V

*	4-949-935-01	CUSHION (FL)		C733	1-162-286-21	CERAMIC	220PF 10% 50V
*	4-969-714-01	HOLDER, FL TUBE		C734	1-162-286-21	CERAMIC	220PF 10% 50V
		< CAPACITOR >		C735	1-162-286-21	CERAMIC	220PF 10% 50V
C701	1-124-589-11	ELECT	47uF 20% 16V	C736	1-162-286-21	CERAMIC	220PF 10% 50V
C702	1-161-494-00	CERAMIC	0.022uF 25V	C737	1-162-286-21	CERAMIC	220PF 10% 50V
C703	1-161-494-00	CERAMIC	0.022uF 25V	C738	1-162-286-21	CERAMIC	220PF 10% 50V
C704	1-126-245-11	ELECT	330uF 20% 6.3V	C739	1-162-286-21	CERAMIC	220PF 10% 50V
C705	1-126-245-11	ELECT	330uF 20% 6.3V	C740	1-162-286-21	CERAMIC	220PF 10% 50V
C706	1-164-159-11	CERAMIC	0.1uF 50V	C741	1-162-286-21	CERAMIC	220PF 10% 50V
C707	1-164-159-11	CERAMIC	0.1uF 50V	C742	1-162-286-21	CERAMIC	220PF 10% 50V
				C743	1-162-306-11	CERAMIC	0.01uF 30% 16V
				C744	1-162-215-31	CERAMIC	47PF 5% 50V
				C745	1-162-294-31	CERAMIC	0.001uF 10% 50V
				C746	1-162-294-31	CERAMIC	0.001uF 10% 50V
				C747	1-162-294-31	CERAMIC	0.001uF 10% 50V
				C748	1-126-177-11	ELECT	100uF 20% 10V
				C749	1-162-286-21	CERAMIC	220PF 10% 50V
				C750	1-102-948-00	CERAMIC	11PF 5% 50V
				C751	1-102-948-00	CERAMIC	11PF 5% 50V
				C752	1-126-301-11	ELECT	1uF 20% 50V
				C753	1-126-301-11	ELECT	1uF 20% 50V
				C754	1-124-261-00	ELECT	10uF 20% 50V
				C755	1-161-494-00	CERAMIC	0.022uF 25V

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< CONNECTOR >							
* CN701	1-568-858-11	SOCKET, CONNECTOR 15P		R715	1-249-425-11	CARBON	4.7K 5% 1/4W
* CN702	1-568-858-11	SOCKET, CONNECTOR 15P		R716	1-249-429-11	CARBON	10K 5% 1/4W
* CN703	1-568-852-11	SOCKET, CONNECTOR 9P	(AEP, UK, G, IT, EE/N500:AEP2)	R717	1-249-393-11	CARBON	10 5% 1/4W
* CN703	1-568-850-11	SOCKET, CONNECTOR 7P	(CIS, E, AUS/N500:MX, AR, PX)	R718	1-249-423-11	CARBON	3.3K 5% 1/4W
< DIODE >							
D701	8-719-987-63	DIODE	1N4148M	R719	1-247-807-31	CARBON	100 5% 1/4W
D702	8-719-987-63	DIODE	1N4148M	R720	1-249-407-11	CARBON	150 5% 1/4W
D703	8-719-987-63	DIODE	1N4148M	R721	1-249-409-11	CARBON	220 5% 1/4W
D704	8-719-987-63	DIODE	1N4148M	R722	1-249-411-11	CARBON	330 5% 1/4W
			(AEP, UK, EE, AUS/N500:AEP2, PX)	R723	1-249-413-11	CARBON	470 5% 1/4W
D705	8-719-987-63	DIODE	1N4148M	R724	1-249-415-11	CARBON	680 5% 1/4W
			(G, IT, EE, E, AUS/N500:MX, AR, PX)	R725	1-249-417-11	CARBON	1K 5% 1/4W
D706	8-719-987-63	DIODE	1N4148M	R726	1-249-419-11	CARBON	1.5K 5% 1/4W
			(CIS, E, AUS/N500:MX, AR, PX)	R727	1-249-421-11	CARBON	2.2K 5% 1/4W
D707	8-719-987-63	DIODE	1N4148M (N600/N500:CIS)	R728	1-249-423-11	CARBON	3.3K 5% 1/4W
D708	8-719-987-63	DIODE	1N4148M	R729	1-249-425-11	CARBON	4.7K 5% 1/4W
< FILTER >							
FL701	1-517-380-11	INDICATOR TUBE, FLUORESCENT		R730	1-249-429-11	CARBON	10K 5% 1/4W
< IC >							
IC701	8-759-327-88	IC	uPD78044AGF-068-3B9	R731	1-249-433-11	CARBON	22K 5% 1/4W
IC702	8-741-810-59	IC	SBX1810-59	R732	1-249-423-11	CARBON	3.3K 5% 1/4W
< COIL >							
L701	1-410-521-11	INDUCTOR	100uH	R733	1-247-807-31	CARBON	100 5% 1/4W
< TRANSISTOR >							
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE	R734	1-249-407-11	CARBON	150 5% 1/4W
Q702	8-729-119-78	TRANSISTOR	2SC2785-HFE	R735	1-249-409-11	CARBON	220 5% 1/4W
Q703	8-729-900-36	TRANSISTOR	DTC124ES	R736	1-249-411-11	CARBON	330 5% 1/4W
Q704	8-729-900-36	TRANSISTOR	DTC124ES	R737	1-249-413-11	CARBON	470 5% 1/4W
< RESISTOR >							
R701	1-247-807-31	CARBON	100 5% 1/4W	R738	1-249-415-11	CARBON	680 5% 1/4W
R702	1-247-807-31	CARBON	100 5% 1/4W	R739	1-249-417-11	CARBON	1K 5% 1/4W
R703	1-247-807-31	CARBON	100 5% 1/4W	R740	1-249-419-11	CARBON	1.5K 5% 1/4W
R704	1-247-807-31	CARBON	100 5% 1/4W	R741	1-249-421-11	CARBON	2.2K 5% 1/4W
R709	1-249-417-11	CARBON	1K 5% 1/4W	R742	1-249-423-11	CARBON	3.3K 5% 1/4W
R710	1-249-417-11	CARBON	1K 5% 1/4W	R743	1-249-417-11	CARBON	1K 5% 1/4W
R711	1-249-433-11	CARBON	22K 5% 1/4W	R744	1-249-441-11	CARBON	220 5% 1/4W
R712	1-249-433-11	CARBON	22K 5% 1/4W	R745	1-249-441-11	CARBON	330 5% 1/4W
R713	1-249-429-11	CARBON	10K 5% 1/4W	R746	1-249-441-11	CARBON	470 5% 1/4W
R714	1-249-429-11	CARBON	10K 5% 1/4W	R747	1-249-441-11	CARBON	680 5% 1/4W
				R748	1-249-441-11	CARBON	100K 5% 1/4W
				R749	1-249-441-11	CARBON	100K 5% 1/4W
				R750	1-249-441-11	CARBON	100K 5% 1/4W
				R751	1-249-441-11	CARBON	100K 5% 1/4W
				R752	1-249-441-11	CARBON	100K 5% 1/4W
				R753	1-249-441-11	CARBON	100K 5% 1/4W
				R754	1-249-441-11	CARBON	100K 5% 1/4W
				R755	1-249-441-11	CARBON	100K 5% 1/4W
				R756	1-249-441-11	CARBON	100K 5% 1/4W
				R757	1-249-441-11	CARBON	100K 5% 1/4W
				R758	1-249-441-11	CARBON	100K 5% 1/4W
				R759	1-249-441-11	CARBON	100K 5% 1/4W
				R761	1-249-417-11	CARBON	1K 5% 1/4W
				R762	1-249-421-11	CARBON	2.2K 5% 1/4W
				R763	1-249-417-11	CARBON	1K 5% 1/4W
				R764	1-249-417-11	CARBON	1K 5% 1/4W
				R765	1-249-417-11	CARBON	1K 5% 1/4W
				R766	1-249-429-11	CARBON	10K 5% 1/4W
				R767	1-249-429-11	CARBON	10K 5% 1/4W

STR-N500/N600

PANEL

Ref. No.	Part No.	Description	Remark		
R768	1-249-429-11	CARBON	10K	5%	1/4W
R769	1-249-441-11	CARBON	100K	5%	1/4W
R770	1-247-887-00	CARBON (UK, EE, CIS, E, AUS/N500:AEP2, MX, AR, PX)	220K	5%	1/4W
< COMPOSITION CIRCUIT BLOCK >					
RB701	1-232-967-11	COMPOSITION CIRCUIT BLOCK	< SWITCH >		
S701	1-554-303-21	SWITCH, TACTILE (DANCE/5)			
S702	1-554-303-21	SWITCH, TACTILE (EQ MEMORY)			
S703	1-554-303-21	SWITCH, TACTILE (CHARACTER)			
S704	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)			
S705	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ▽)			
S706	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ◁)			
S707	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL △)			
S708	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ▷)			
S709	1-554-303-21	SWITCH, TACTILE (DISPLAY)			
S710	1-554-303-21	SWITCH, TACTILE (TUNING -)			
S711	1-554-303-21	SWITCH, TACTILE (TUNING MODE)			
S712	1-554-303-21	SWITCH, TACTILE (TUNING MEMORY)			
S713	1-554-303-21	SWITCH, TACTILE (TUNING +)			
S714	1-554-303-21	SWITCH, TACTILE (TUNER/BAND)			
S715	1-554-303-21	SWITCH, TACTILE (CLASSIC/4)			
S716	1-554-303-21	SWITCH, TACTILE (JAZZ/3)			
S717	1-554-303-21	SWITCH, TACTILE (POPS/2)			
S718	1-554-303-21	SWITCH, TACTILE (ROCK/1)			
S719	1-554-303-21	SWITCH, TACTILE (P-FILE)			
S720	1-554-303-21	SWITCH, TACTILE (TIMER SET)			
S721	1-554-303-21	SWITCH, TACTILE (CLOCK SET)			
S722	1-554-303-21	SWITCH, TACTILE (DAILY)			
S723	1-554-303-21	SWITCH, TACTILE (REC)			
S724	1-554-303-21	SWITCH, TACTILE (EON) (AEP, UK, G, IT, EE/N500:AEP2)			
S725	1-554-303-21	SWITCH, TACTILE (PTY) (AEP, UK, G, IT, EE/N500:AEP2)			
< VIBRATOR >					
X701	1-760-096-11	VIBRATOR, CRYSTAL (4.19MHz)			

Ref. No.	Part No.	Description	Remark
ACCESORIES & PACKING MATERIALS			
*	4-973-307-01	CUSHION (UPPER) (UK, EE, CIS, E, AUS/N500:MX, AR, PX)	
*	4-973-639-01	INDIVIDUAL CARTON(N500:AEP, AEP2, UK, G, IT)	
*	4-973-639-11	INDIVIDUAL CARTON(N600:AEP, UK, G, IT)	
*	4-973-650-01	CUSHION (LOWER) (UK, EE, CIS, E, AUS/N500:MX, AR, PX)	
*	4-973-868-01	CUSHION(AEP, G, IT/N500:AEP2)	

MISCELLANEOUS

3 1-769-544-11 WIRE (FLAT TYPE) (15 CORE)
5 1-769-546-11 WIRE (FLAT TYPE) (7 CORE) (CIS, E, AUS/N500:MX, AR, PX)
5 1-769-547-11 WIRE (FLAT TYPE) (9 CORE) (AEP, UK, G, IT, EE/N500:AEP2)
6 1-769-545-11 WIRE (FLAT TYPE) (15 CORE)

TC-N500

SERVICE MANUAL

AEP Model

UK Model

E Model

Australian Model

PX Model



TC-N500 are the Stereo Cassette Deck section in LBT-N500/N550/N550K/N550P and LBT-N600AV/N650AV.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	HCD-A390
Tape Transport	DECK A: TCM-190RA12AL
Mechanism Type	DECK B: TCM-190RB53A

SPECIFICATIONS

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF With Sony Type II cassette 40 Hz to 14 kHz (± 3 dB) With Sony Type I cassette 40 Hz to 13 kHz (± 3 dB)
Wow and flutter	0.1% (W.RMS) $\pm 0.2\%$ (W.Peak)
Weight	Approx. 3.3 kg
Dimensions	Approx. 355 x 130 x 310 mm (w/h/d, including projections)

Design and specifications are subject to change without notice.



MICROFILM

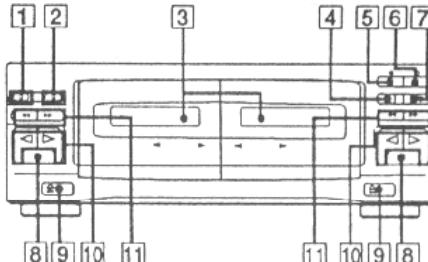
STEREO CASSETTE DECK
SONY[®]

SECTION 1 GENERAL

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
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7. ELECTRICAL PARTS LIST	25	

This section is extracted from LBT-N500
Instruction manual.



- 1 DOLBY NR switch (16)
- 2 DIRECTION MODE selector (16)
- 3 Cassette compartments (16)
- 4 II PAUSE button (16)
- 5 HI-SPEED DUBBING button (20)
- 6 CD SYNCRO button (17, 19)
- 7 ● REC button (17)
- 8 ■ (stop) buttons (16)
- 9 ▲ EJECT buttons (16)
- 10 ▶ (front side play)
◀ (reverse side play) buttons (16, 17)
- 11 ◀◀ (fast leftward) AMS
▶▶ (fast rightward) AMS buttons (16)

SERVICING NOTES

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Power Supply Used Servicing

This Unit does not have its own power supply. As it works on the power supplied from the amplifier (STR-N500/N600) used for this series, connect this amplifier when servicing the unit (conduction repair, etc.).

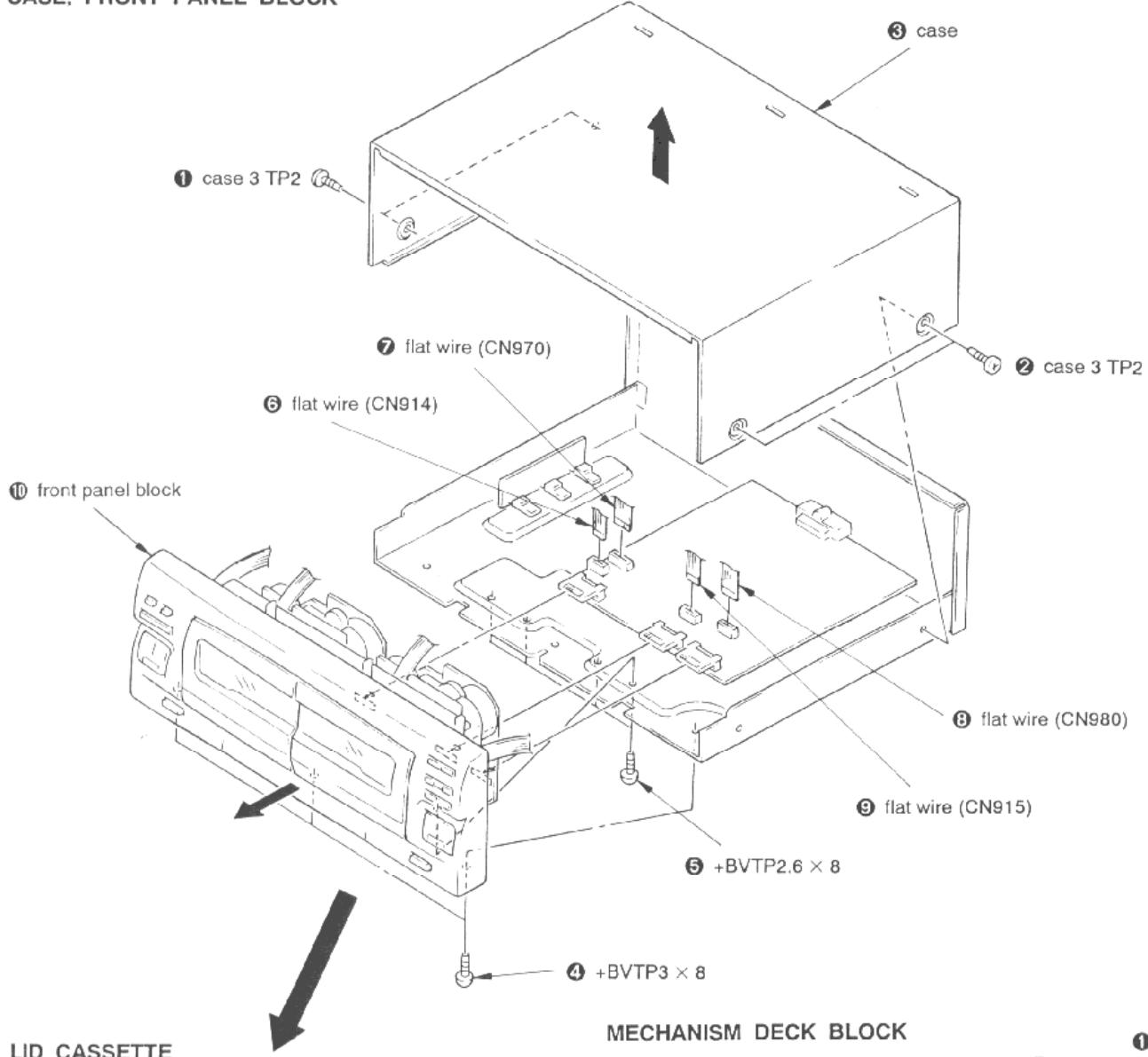
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 2 DISASSEMBLY

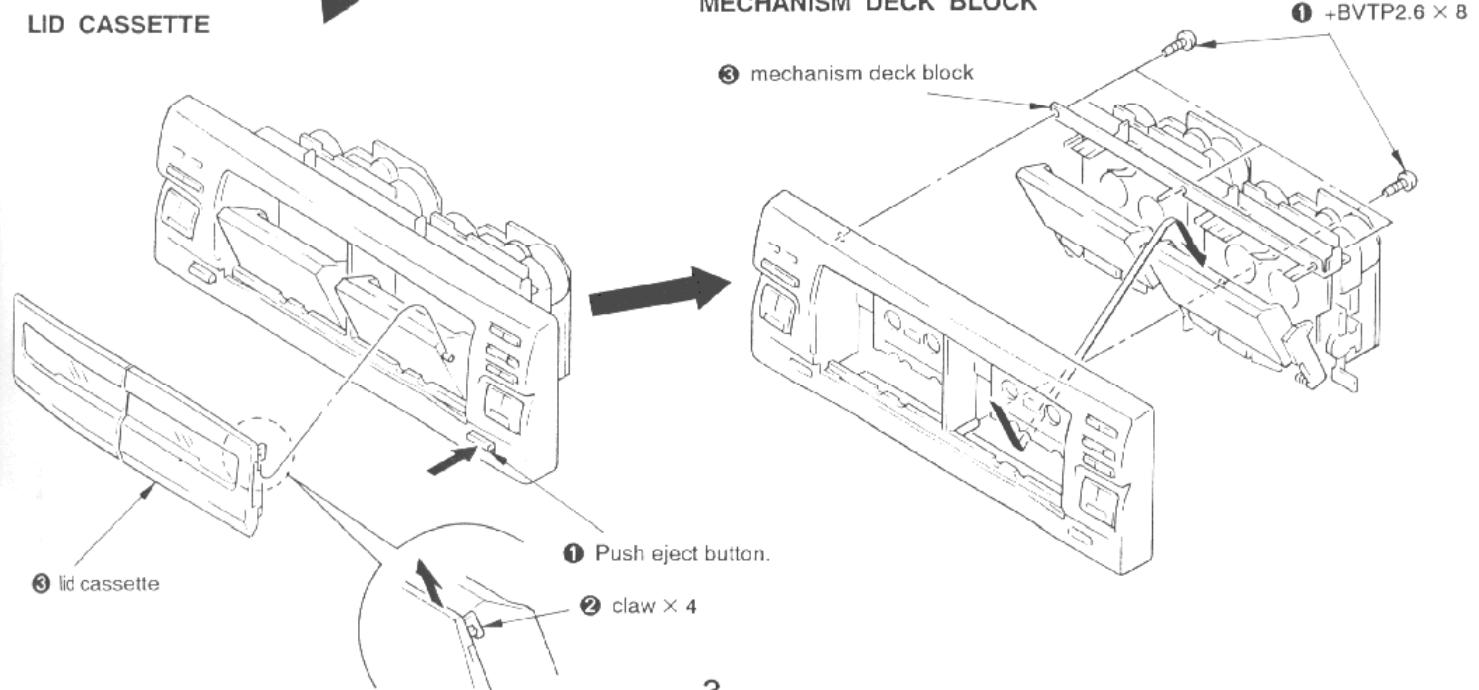
Note: Follow the disassembly procedure in the numerical order given.

CASE, FRONT PANEL BLOCK



LID CASSETTE

MECHANISM DECK BLOCK



SECTION 3

MECHANICAL ADJUSTMENTS

PRECAUTIONS:

1. Clean the following parts with a denatured-alcoholmoistened swab:
 record/playback head pinch roller
 erase head rubber belts
 capstan idler
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustment, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	30 to 65 g·cm (0.42 to 0.90 oz·inch)
FWD Back tension		DECK A 1 to 6 g·cm (0.014 to 0.08 oz·inch)
		DECK B 2 to 9 g·cm (0.028 to 0.124 oz·inch)
REV	CQ-102RC	30 to 65 g·cm (0.42 to 0.90 oz·inch)
REV Back tension		1 to 6 g·cm (0.014 to 0.08 oz·inch)
FF, REW	CQ-201B	70 to 120 g·cm (0.98 to 1.66 oz·inch)

SECTION 4

ELECTRICAL ADJUSTMENTS

1. The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch : OFF

• Test Tape

Tape	Contents	Used for
P-4-A100	10 kHz, -10 dB	Head Azimuth Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment

$$0 \text{ dB} = 0.775 \text{ V}$$

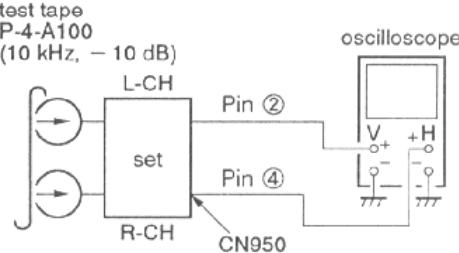
Record/Playback Head Azimuth Adjustment

DECK A

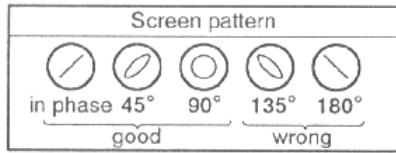
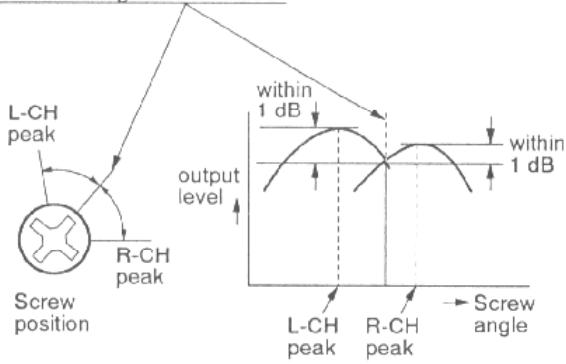
DECK B

Procedure:

1. FWD/REV: Playback Mode

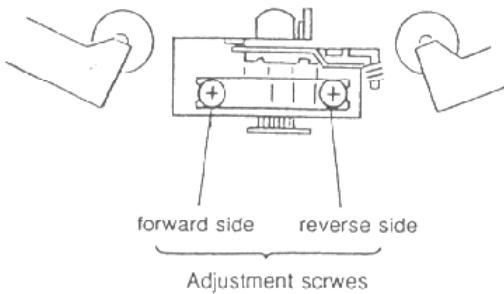


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.



3. Change the REV playback mode and repeat the step 1 to 2.
4. After the adjustments, lock the adjustment screw with suitable locking compound.

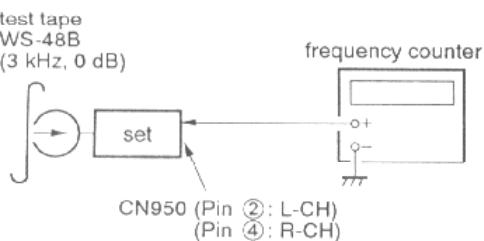
Adjustment Location:



Tape Speed Adjustment **DECK A** **DECK B**

Procedure:

- Perform high speed adjustment before normal speed adjustment.
Mode: playback



(High Speed Adjustment)

1. Short-circuit CN902 (TC board) when the power off.
2. Turn on the power, press the DUB switch, and set high speed playback.
3. Set decks A and B into the FWD mode.
4. Adjust deck A: RV72A (H) and deck B: RV72B (H) so that the reading of the frequency counter becomes the adjustment value.
5. After adjusting, short-circuit CN902.

(Normal Speed Adjustment)

1. Set the FWD playback mode.
2. Adjust deck A: RV71A (N), deck B: RV71B (N) so that the reading of the frequency counter becomes the adjustment value.

Adjustment Values:

High Speed	6,000 ± 20 Hz
Normal Speed	3,000 ± 10 Hz

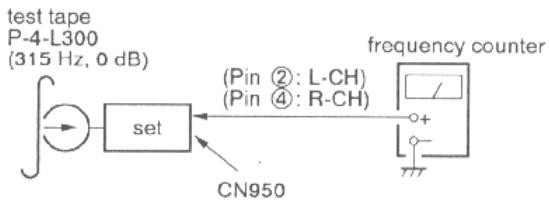
Adjust so that the difference between tape top and tape end is within 3%.
Adjust so that the deviation between the speeds of deck A and deck B at the tape top is within 1.0%.

Adjustment Location: AUDIO (A), (B) boards

Playback Level Adjustment **DECK A** **DECK B**

Procedure:

Mode: playback



Adjust deck A: RV11A (L-CH) and RV21A (R-CH), deck B: RV11B (L-CH) and RV21B (R-CH) so that within the adjustment values specified. The output level is within the adjustment values specified.

Adjustable Level:

CN950 level: -7.7 dB ± 0.5 dB (0.30 to 0.34 V)

Level Difference between Channels: within 1.0 dB

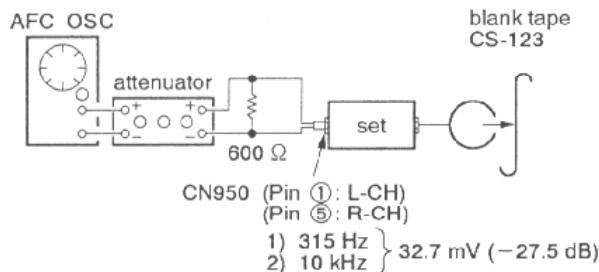
Confirm the level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location: AUDIO (A), (B) boards

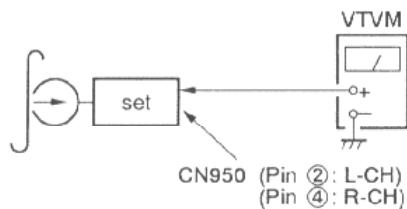
Record BIAS Adjustment **DECK B**

Procedure:

- Mode: record



- Mode: playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjust the RV12 (L-CH) and RV22 (R-CH) to repeat step 1 and 2.

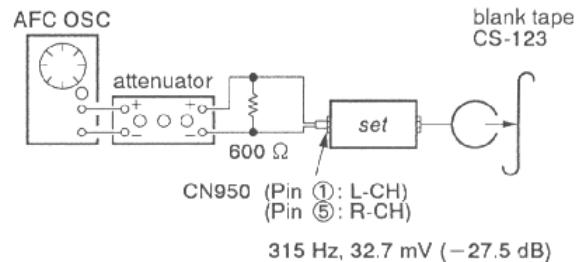
Adjustment Level: Playback output of 10 kHz to playback output of 315 Hz: ± 0.5 dB.

Adjustment Location: AUDIO (B) board

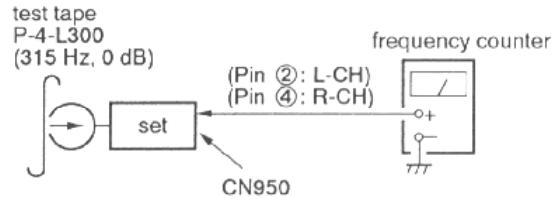
Record Level Adjustments **DECK B**

Procedure:

- Mode: record



- Mode: playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjust the RV101 (L-CH) and RV201 (R-CH) to repeat step 1 and 2.

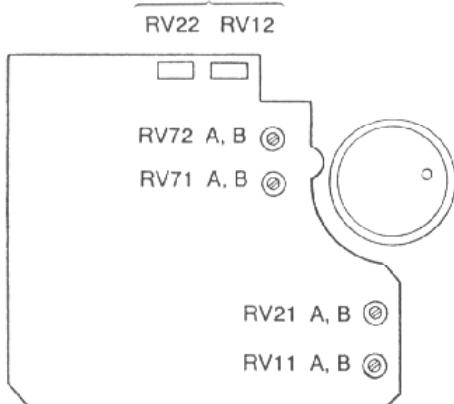
Adjustment Level: CN950 PB level: -27.5 dB ± 0.5 dB (31 to 35 mV).

Adjustment Location: MAIN board

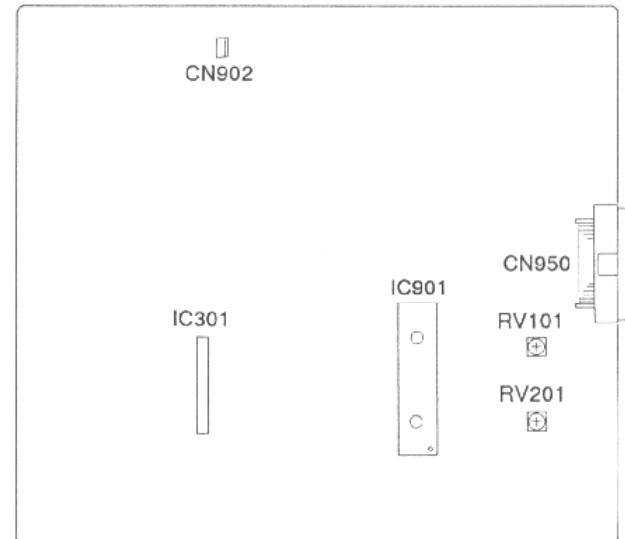
Adjusting Parts Location:

[AUDIO (A), AUDIO (B) Board] – Conductor Side –

(AUDIO (B) ONLY)



[MAIN Board] – Component Side –



SECTION 5 DIAGRAMS

5-1. IC PIN FUNCTION DESCRIPTION MAIN BOARD IC901 M50964-261FP (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Function					
1	G	-	GND					
2	G	-	GND					
3	G	-	+5V					
5	NORM/HIGH	-	Tape speed "H"=High speed "L"=Normal speed					
6	B HALF	I	Deck B record prevention claw A, B detection input (Analog)					
			Voltage (V)	1V	1.9V	2.8V	3.9V	5V
			Half	ON	ON	ON	ON	OFF
			E. PROOF A	OFF	ON	OFF	ON	OFF
			E. PROOF B	ON	ON	OFF	OFF	OFF
7	KEY Y	I	KEY input					
			Voltage (V)	0	0.3	0.7	1.2	1.7
			KEY Y	B ■	B □	B ▶	B ◀	A ◀ A ▶
			KEY X	A ■	A ▶	A ◀	B ▶	B ● DUB
								RELAY OFF
								CD
9	AMS IN	I	AMS signal input					
10	LM ON/OFF	O	Line mute output					
11	RM ON/OFF	O	Mute output					
12	RELAY ON/OFF	O	REC/PB change relay output					
13	REC/PB	O	Dolby IC REC/PB select output					
14	EQ70	O	Playback EQ output for playing deck (Not used)					
15	SEL A/B	O	Dolby IC PB input Deck A/B select output					
16	AMS MUTE	O	AMS mute output					
17	AU BUS	I	AUDIO BUS input					
18	BIAS ON/OFF	O	Bias oscillation output					
19	AUB OUT	O	AUDIO BUS output					
20	A BUS	I	AUDIO BUS normal input					
21	NC	-	Not used					
22	NC	-	GND					
23	NC	-	GND					
24	Vss	-	GND					
25	RESET	I	Microcomputer reset input					
26	XIN	I	Clock input (4 MHz)					
27	XOUT	O	Clock output (4 MHz)					
28	φ	O	Not used (open)					
29	Vss	-	GND					
30	PW IN	I	GND					
31	A STOP	I	Deck A STOP switch input					
32	A HALF	I	Deck A Half switch input					
33	A SHUT	I	Deck A Reel table signal input					
34	A70 U	I	GND					
35	B STOP	I	Deck B STOP switch input					

Pin No.	Pin Name	I/O	Function
36	B SHUT	I	Deck B Reel table signal input
37	B70 U	I	+5V
38	NC	-	Not used
39	ARM 3	O	Deck A Reel Motor control out
40	ARM 2	O	
41	ARM 1	O	
42	BRM 3	O	Deck B Reel Motor control out
43	BRM 2	O	
44	BRM 1	O	
45	H/L	O	Capstan motor speed select
46	A CM	O	A Capstan motor ON/OFF
47	B CM	O	B Capstan motor ON/OFF
48	BS/ASCH	I	Deck B Reel table/BS signal input
49	AP/BSCH	I	Deck A Reel table/AP signal input
50	A REV	O	Deck A RVS LED output
51	A FWD	O	Deck A FWD LED output
52	A PLAY	O	Deck B RVS/FWD LED control output (Not used)
53	DUB H	O	High Speed Dubbing LED output
54	DUB N	O	Normal Speed Dubbing LED output (Not used)
55	NC	-	Not used
56	CD SYNC	O	Auto CD Synchro LED output
57	B REV	O	Deck B RVS LED output
58	B FWD	O	Deck B FWD LED output
59	B PLAY	O	Deck B RVS/FWD LED control output (Not used)
60	B PAUSE	O	Deck B PAUSE LED output
61	B REC	O	Deck B REC LED output
62	PASS	O	PASS amplifier switch output
63	TEST	I	Electrical adjustment test mode setting
64	NC	-	+5 V
65	Vss	-	GND
66	NC	-	Not used
67	Vcc	-	POWER 5 ± 0.5V
68	AVss	-	Analog system GND
69	VREF	I	Analog system reference voltage input
70	DAC	-	GND
71	-	-	
72	-	-	

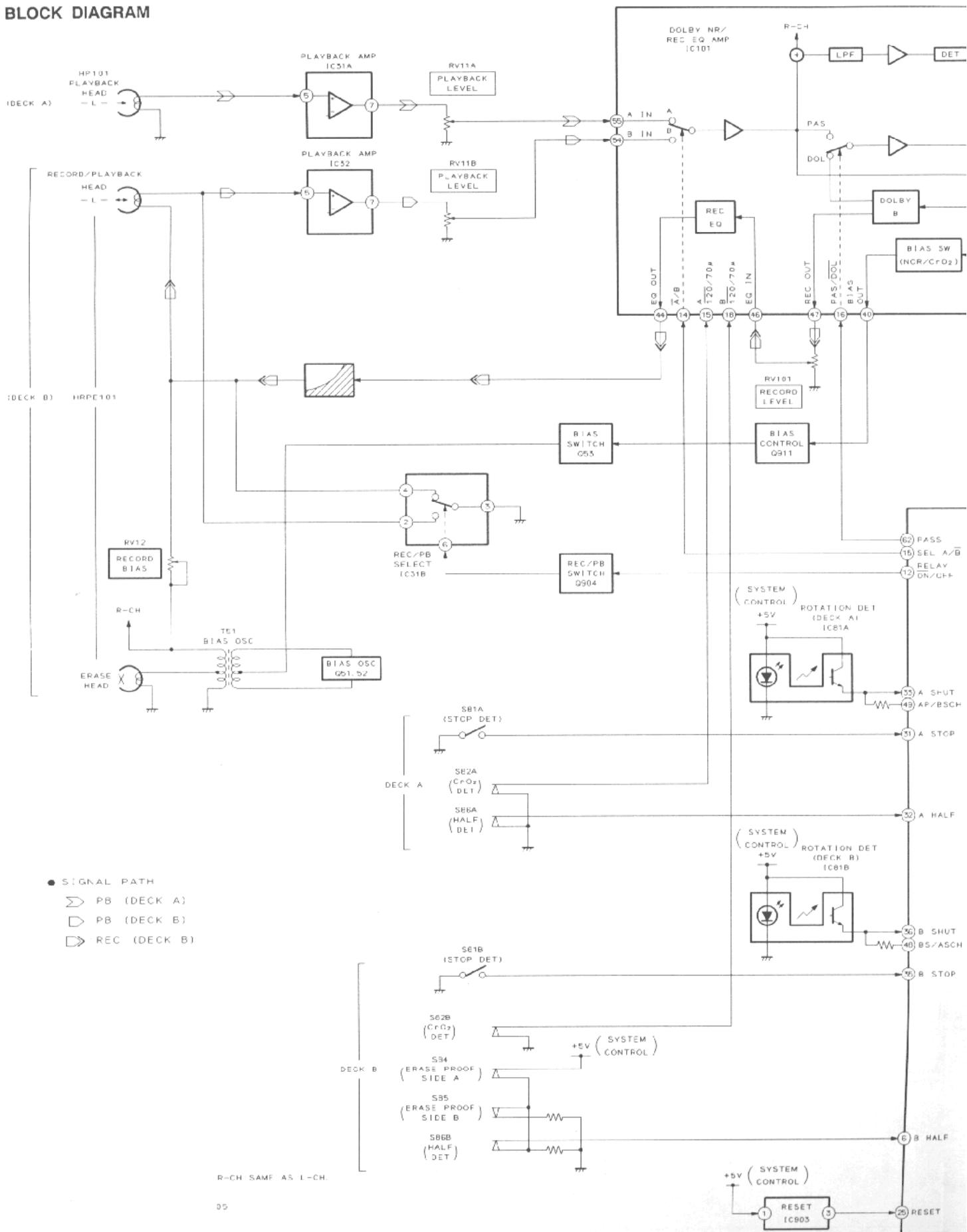
[TEST MODE]

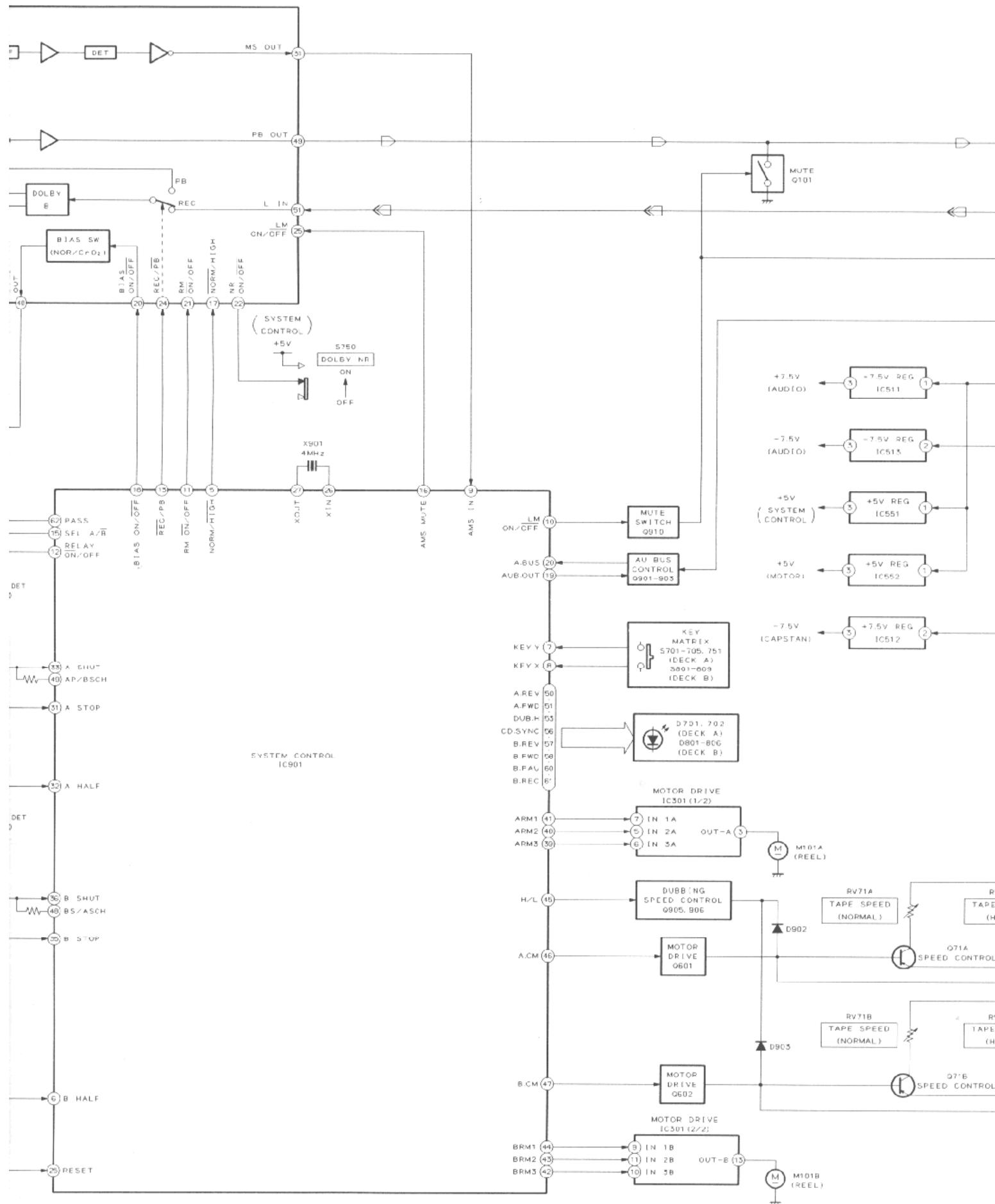
When making pin ⑥3 low (connect pin ① of CN902 to ground with jumper wire), following function operates.

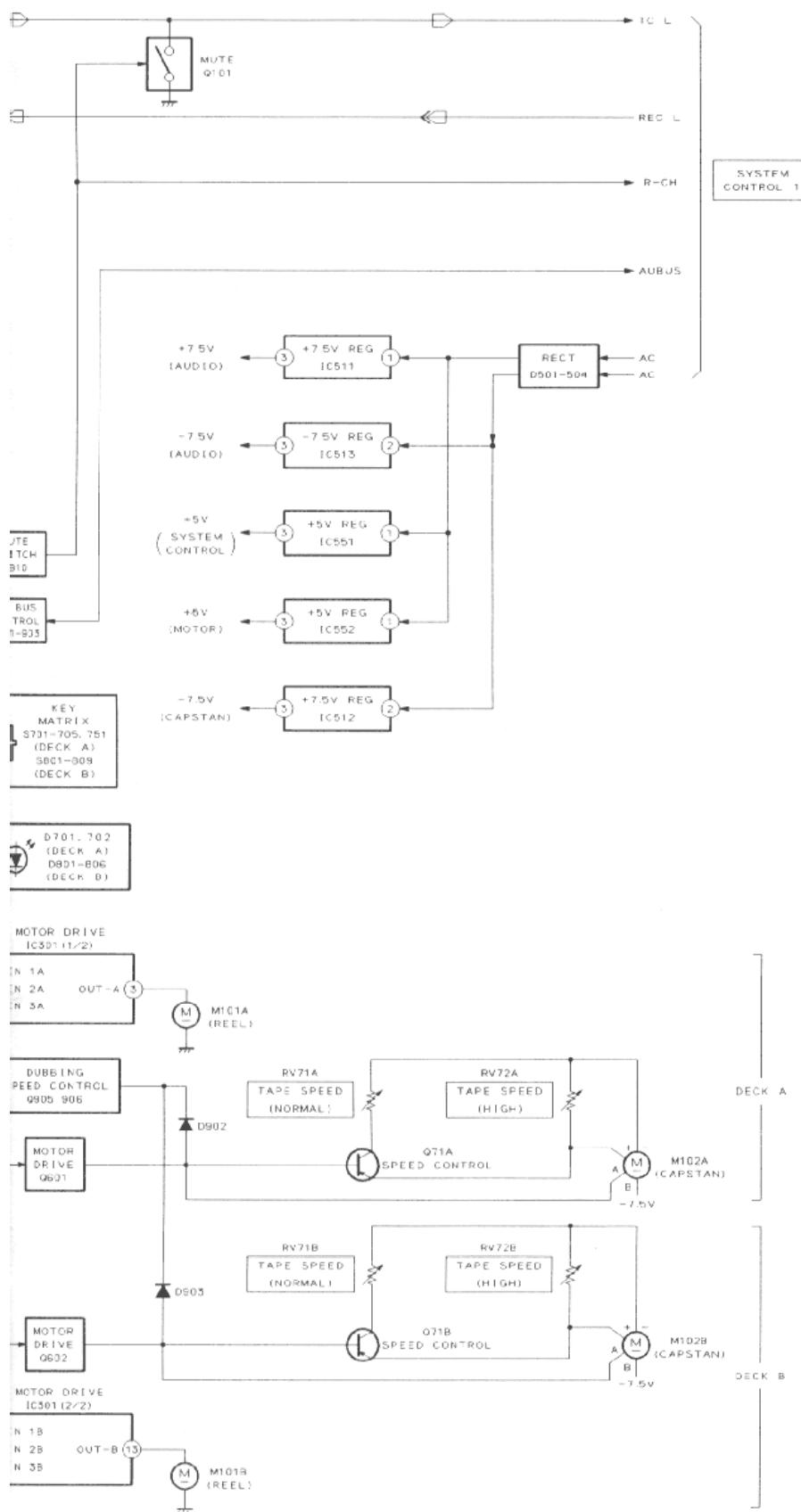
1. Source monitor

Release the line mute while recording.

5-2. BLOCK DIAGRAM



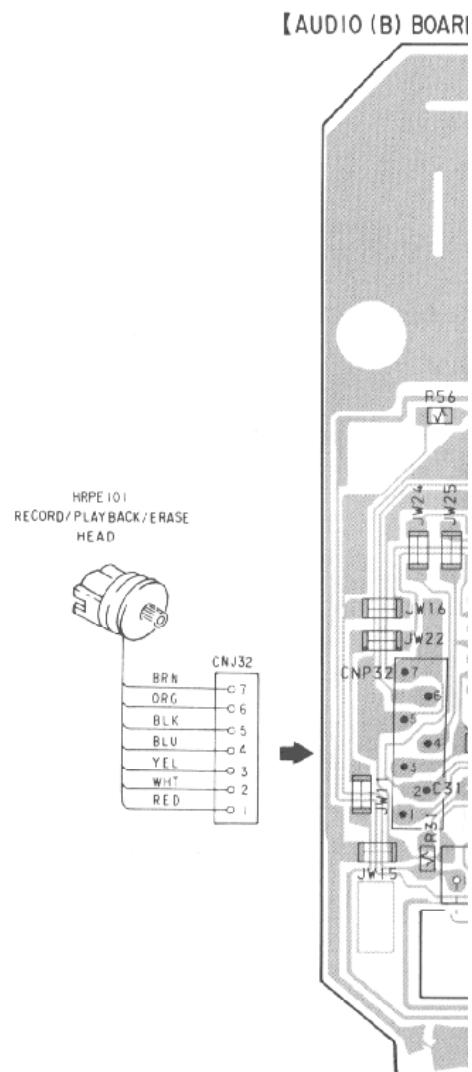




5-3. PRINTED WIRING BOARDS

• Semiconductor Location

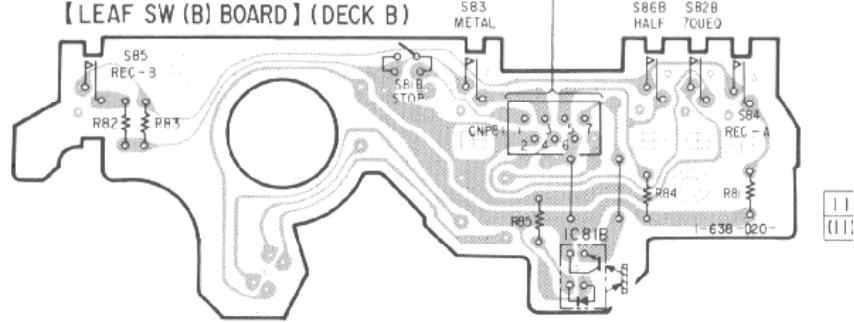
Ref. No.	Location
D501	G-27
D502	G-27
D503	G-27
D504	G-27
D582	H-26
D584	H-26
D586	I-25
D701	H-10
D702	H-11
D801	C-10
D802	C-11
D803	D-10
D804	D-11
D805	B-10
D806	B-10
D901	G-23
D902	H-20
D903	D-22
D904	H-27
D905	H-27
D911	F-26
D912	F-26
IC31A	G-15
IC31B	G-3
IC32	G-5
IC81A	C-16
IC81B	C-6
IC101	D-25
IC301	D-22
IC511	G-26
IC512	J-25
IC513	H-25
IC551	J-28
IC552	J-26
IC901	H-22
IC903	G-23
Q51	F-5
Q52	E-5
Q53	F-4
Q71A	G-16
Q81B	G-6
Q101	B-26
Q201	B-27
Q601	F-22
Q602	E-22
Q901	G-23
Q902	F-23
Q903	G-23
Q904	H-23
Q905	E-22
Q906	E-22
Q910	G-23
Q911	C-22

A
B
C
D
E
F
G
H
I
J

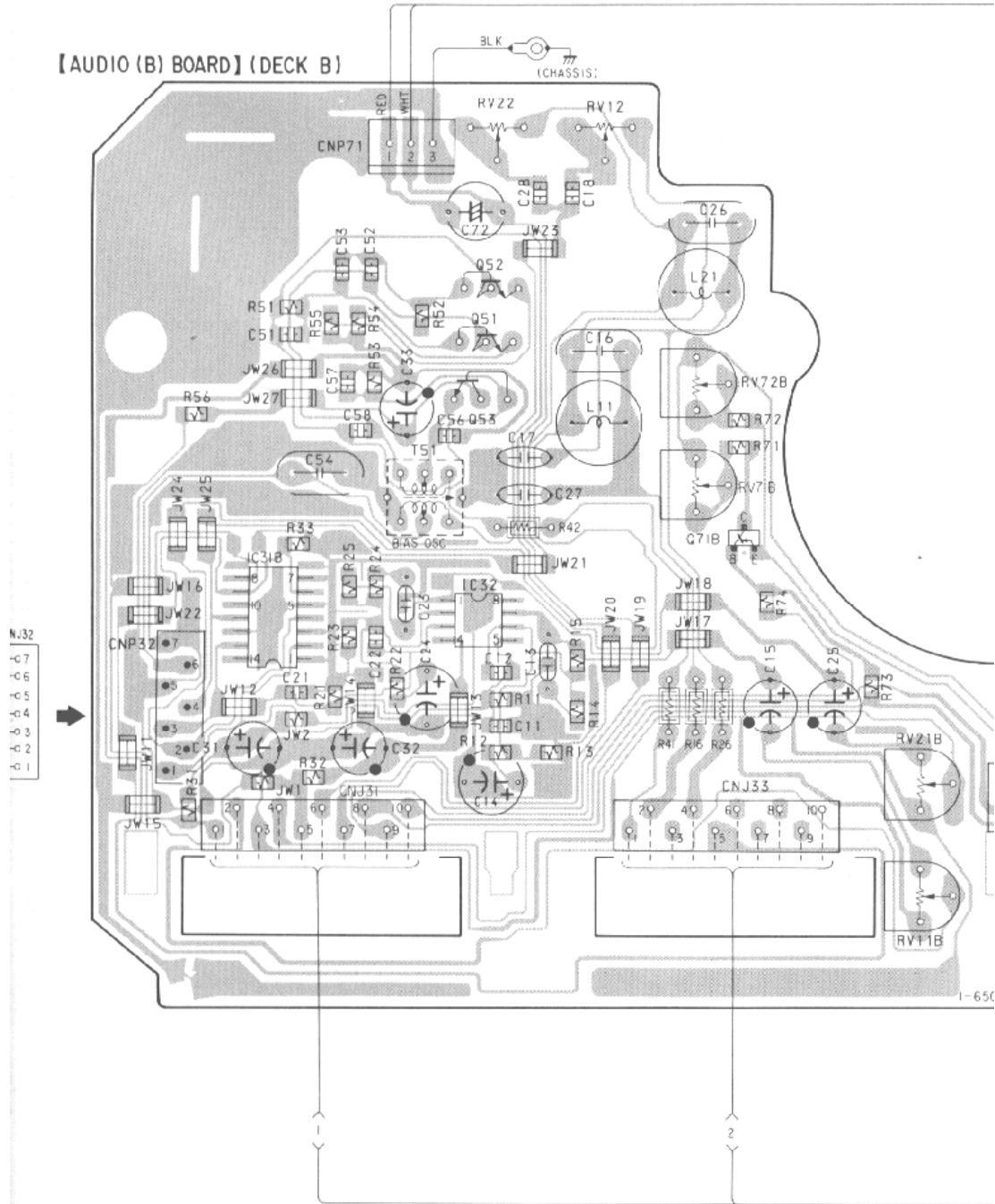
Note:

- — : parts extracted from the component side.
- ○—○ : Jumper wire connected to the ground pattern on the component side.
- △ : internal component.

【LEAF SW (B) BOARD】(DECK B)

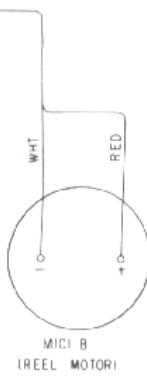


【AUDIO (B) BOARD】(DECK B)

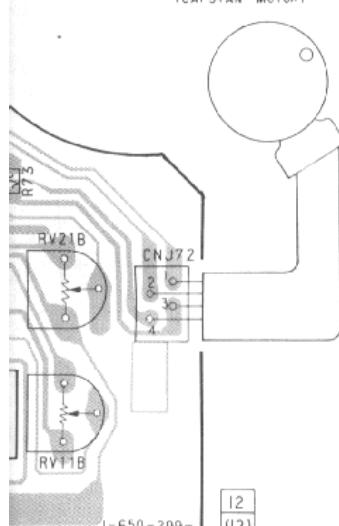




三



IREEL MOTOR

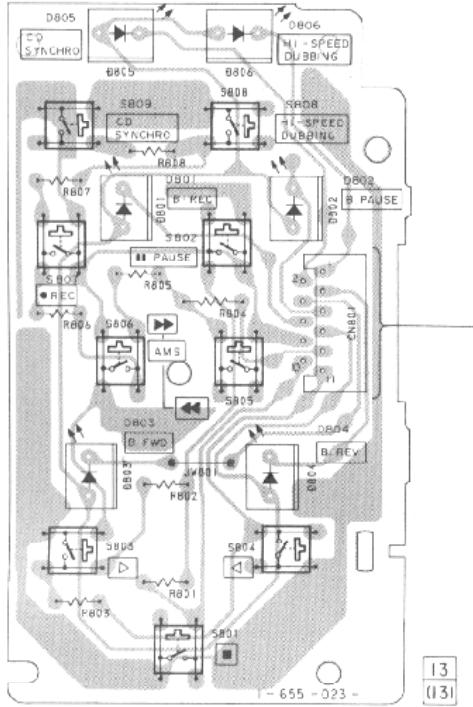


{CAPSTAN MOTOR}

12

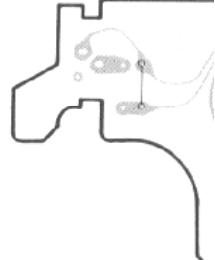
(12)

【PANEL (B) BOARD】
〔DECK B〕

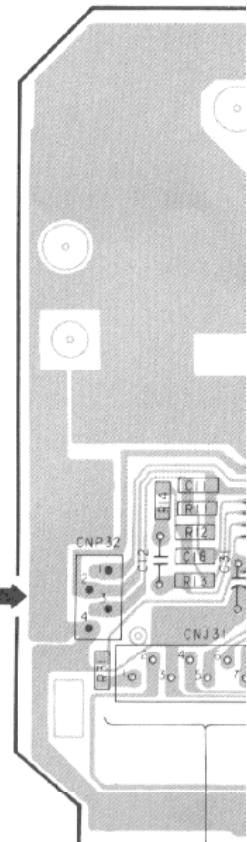


13
(13)

LEAF SW (A) |



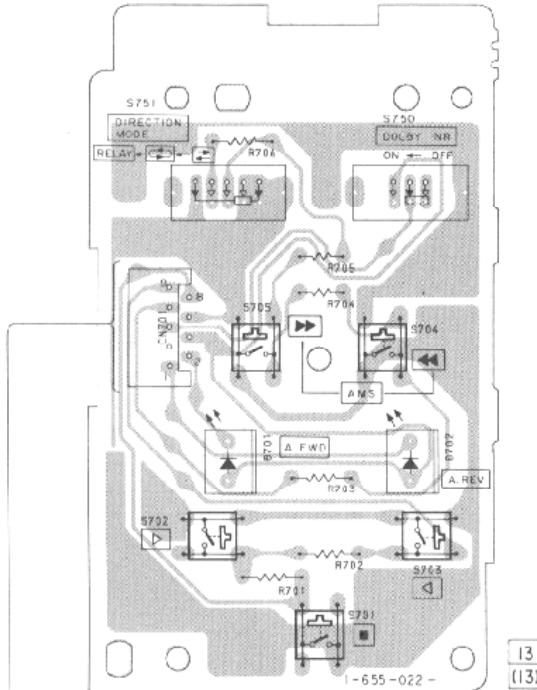
[AUDIO(A) BOARD
(DECK A)]



HPI01
PLAYBACK
HEAD

CNJ32

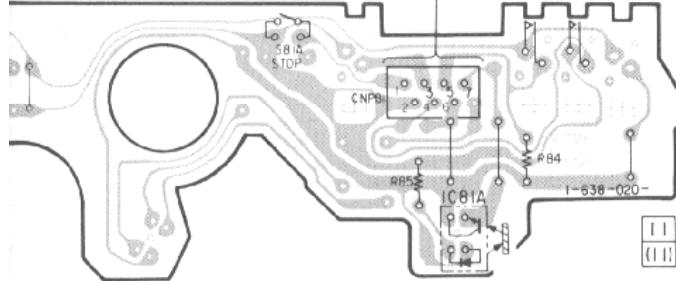
【PANEL (A) BOARD】
【DECK A】



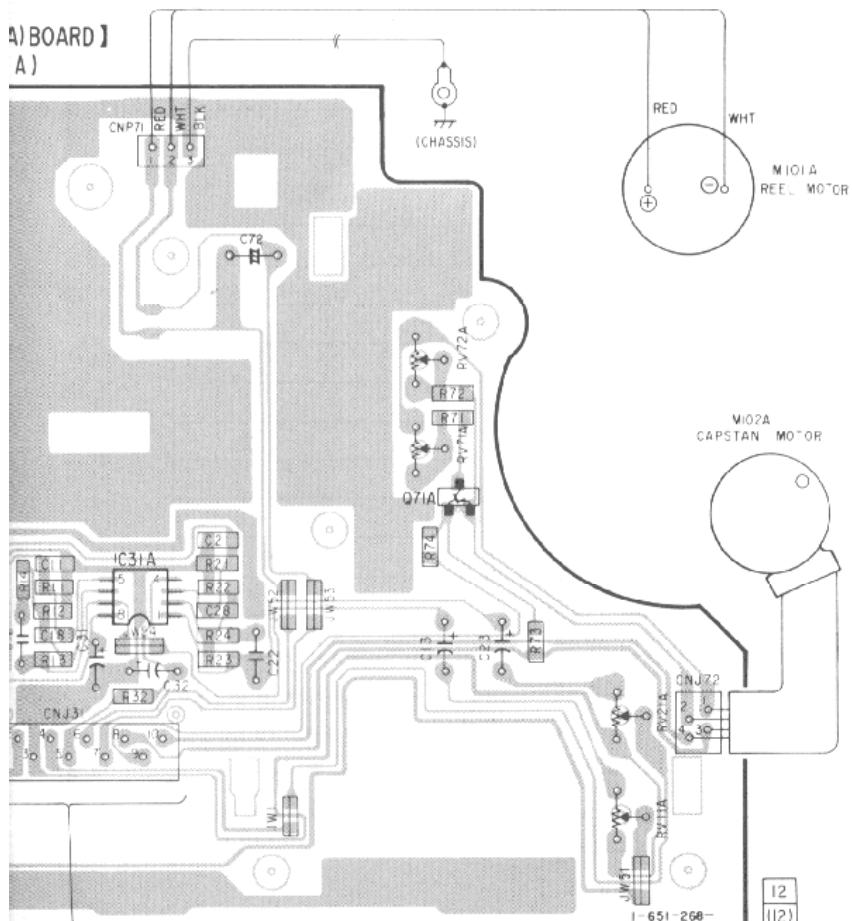
13
(13)



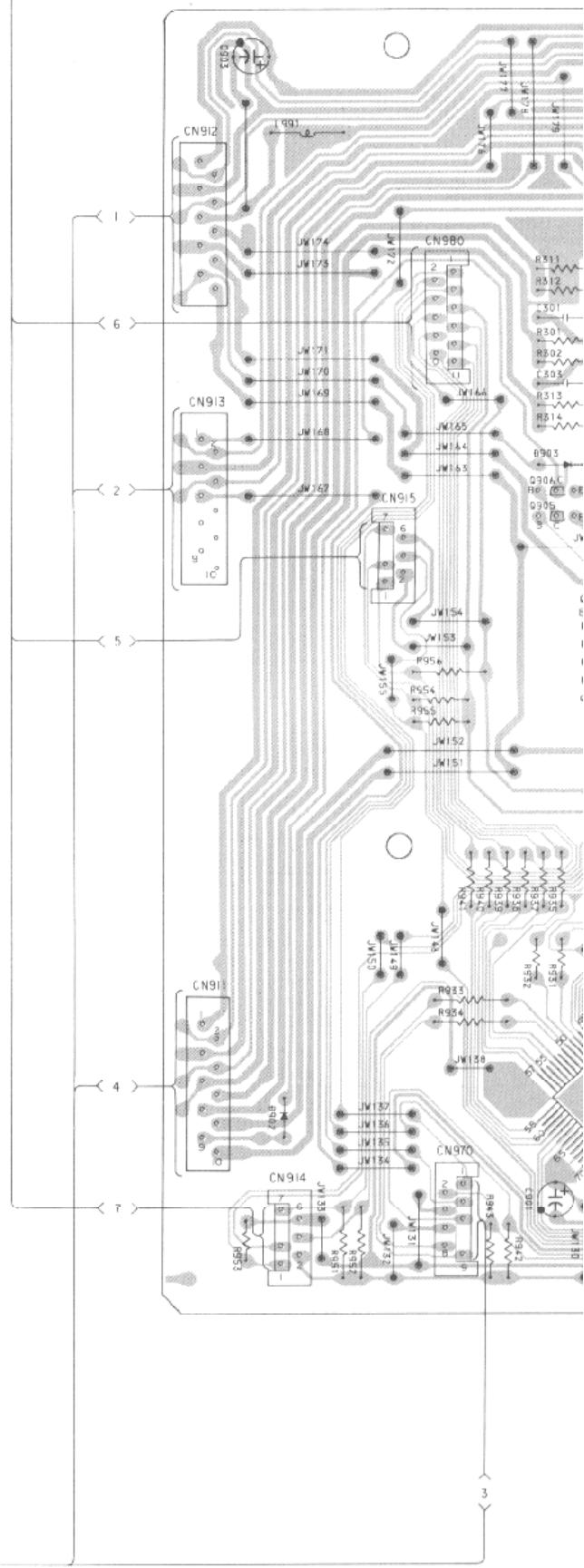
SW (A) BOARD】(DECK A)

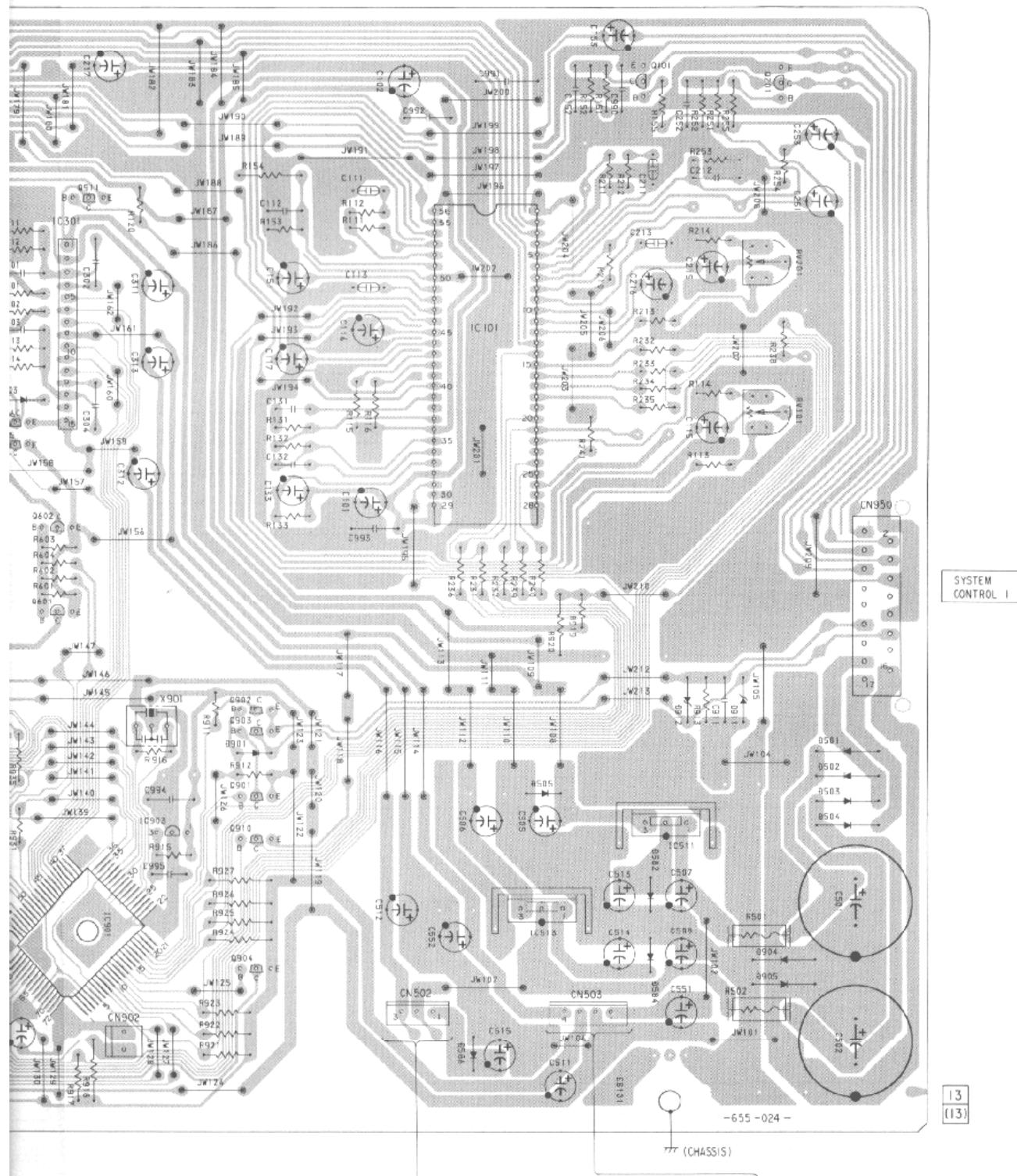


A) BOARD]

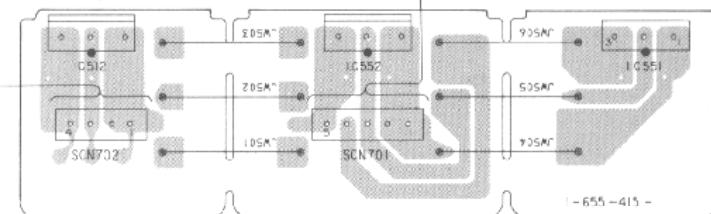


【MAIN BOARD】





【POWER 1 BOARD】



5-4. SCHEMATIC DIAGRAM

1

2

3

4

5

6

7

8

A

B

C

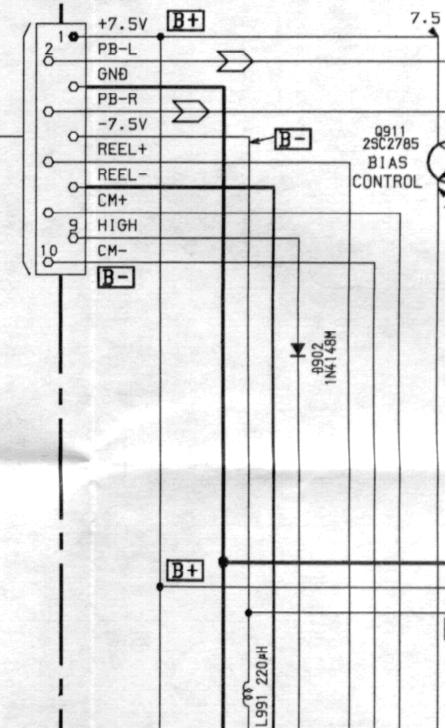
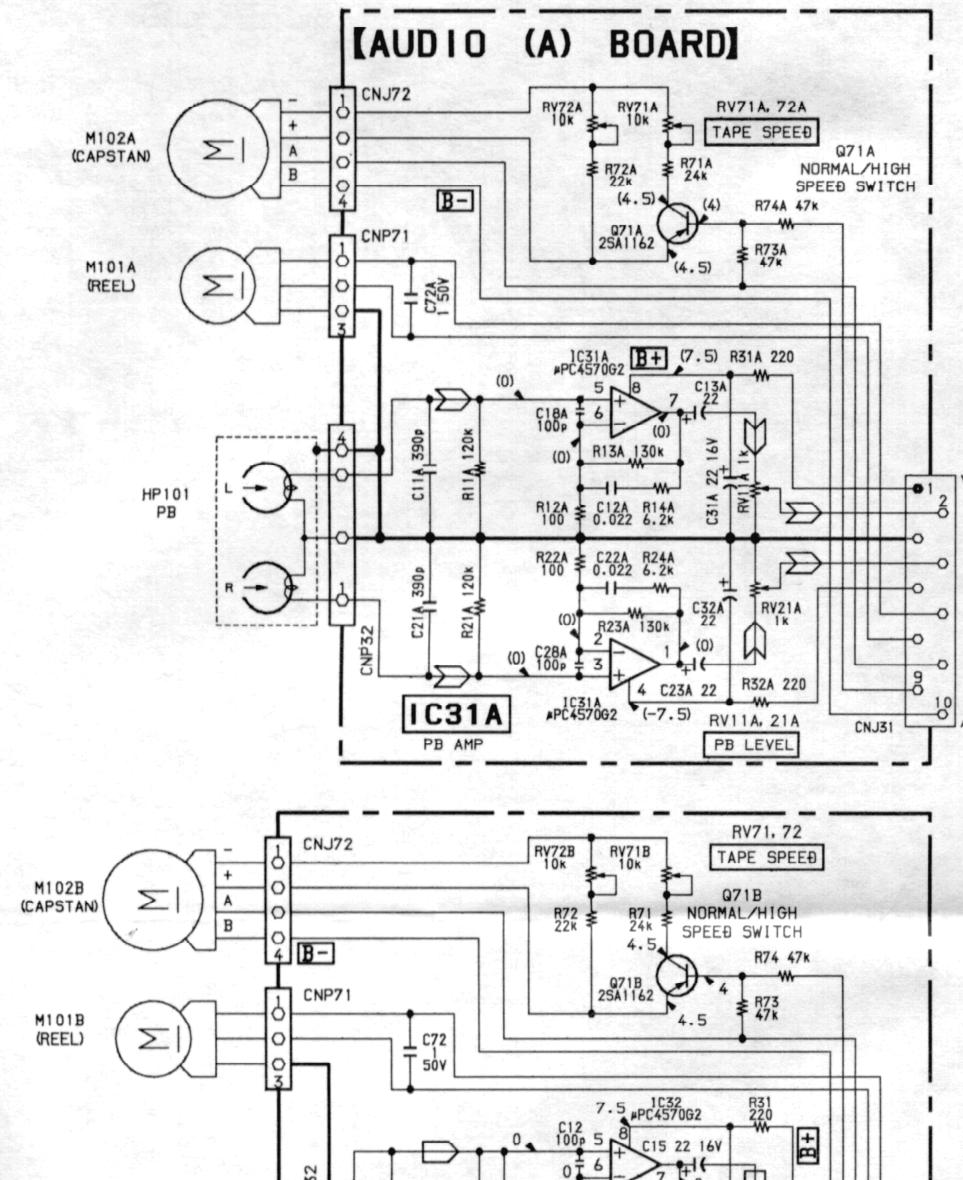
D

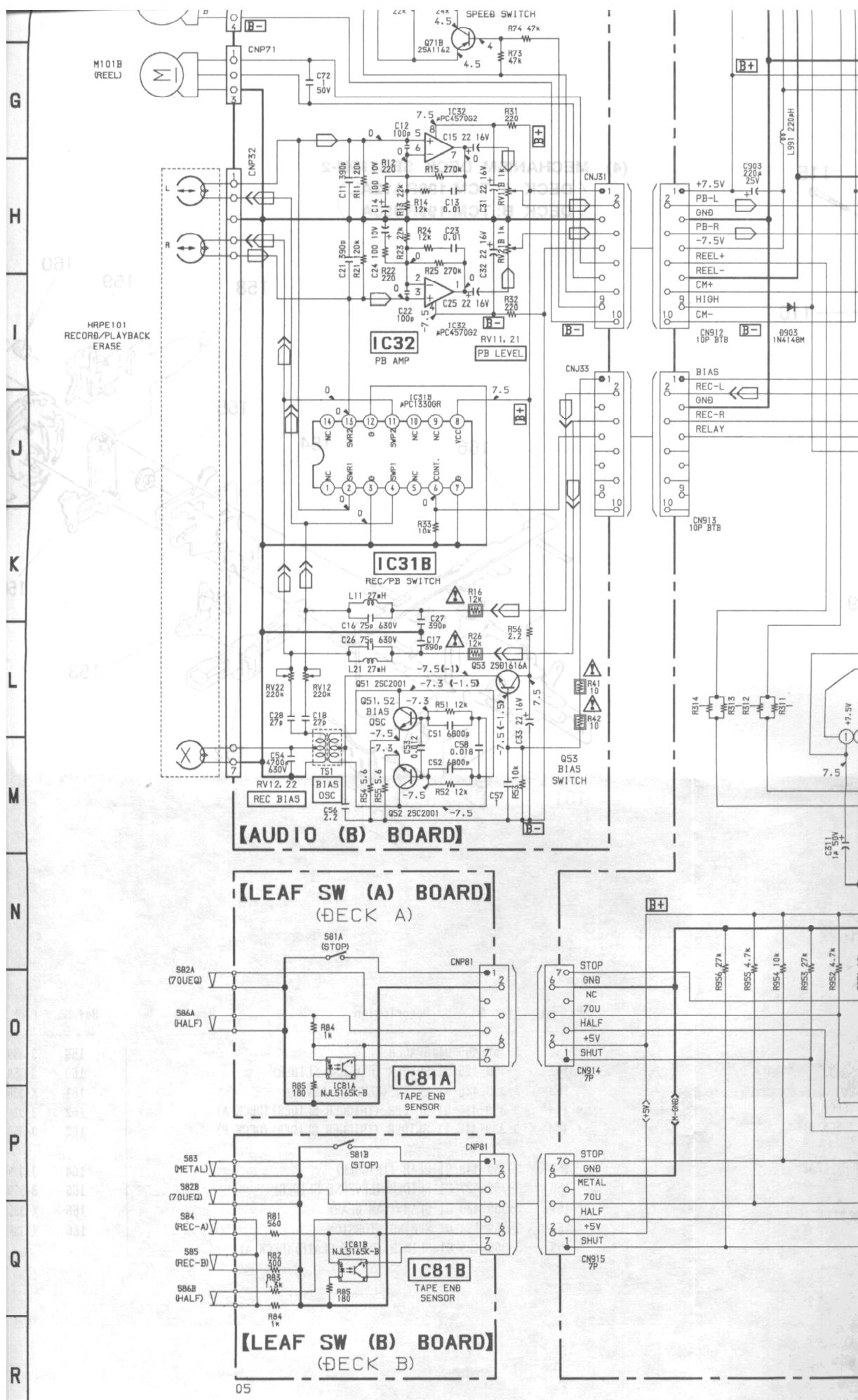
E

F

G

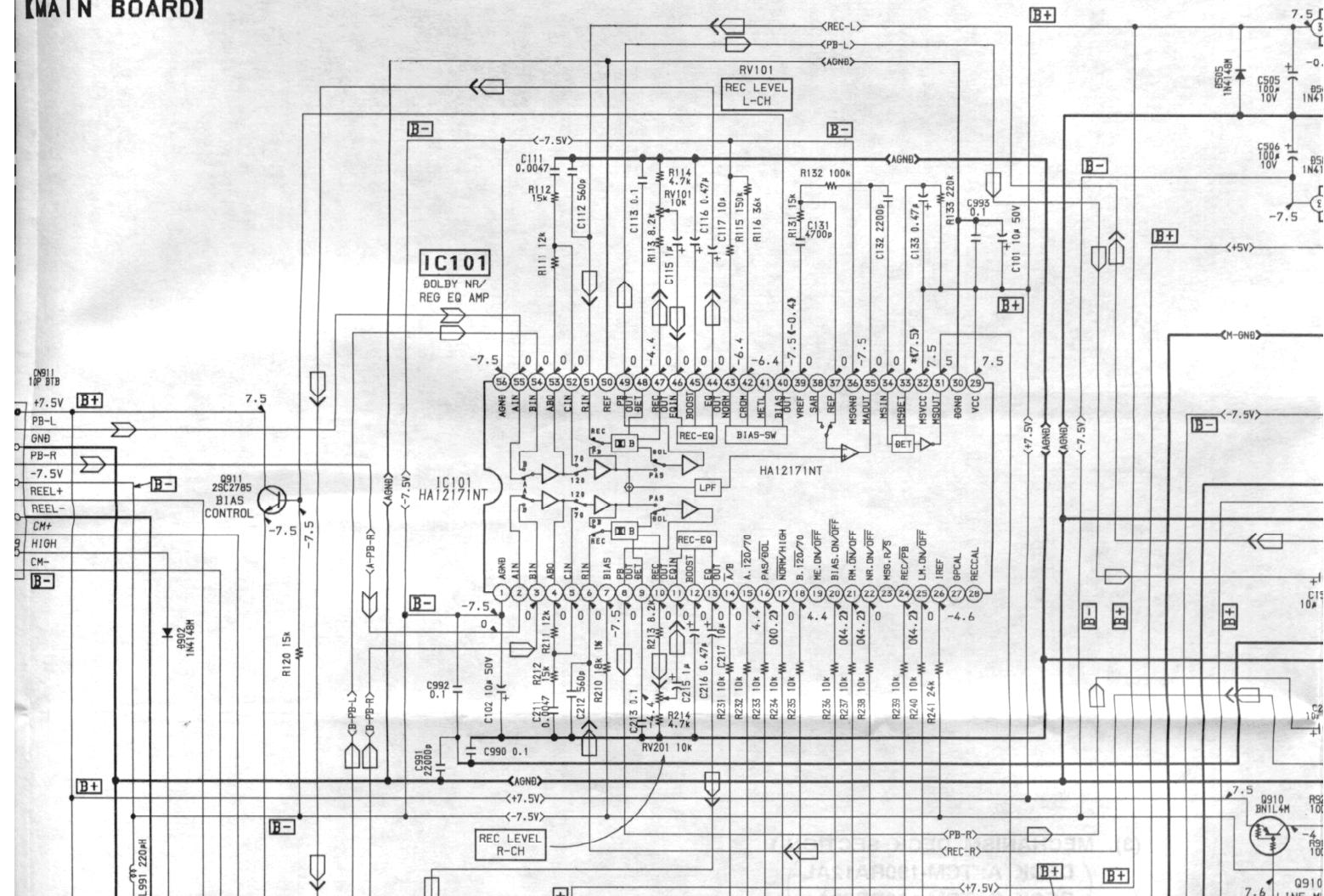
MAIN BOARD

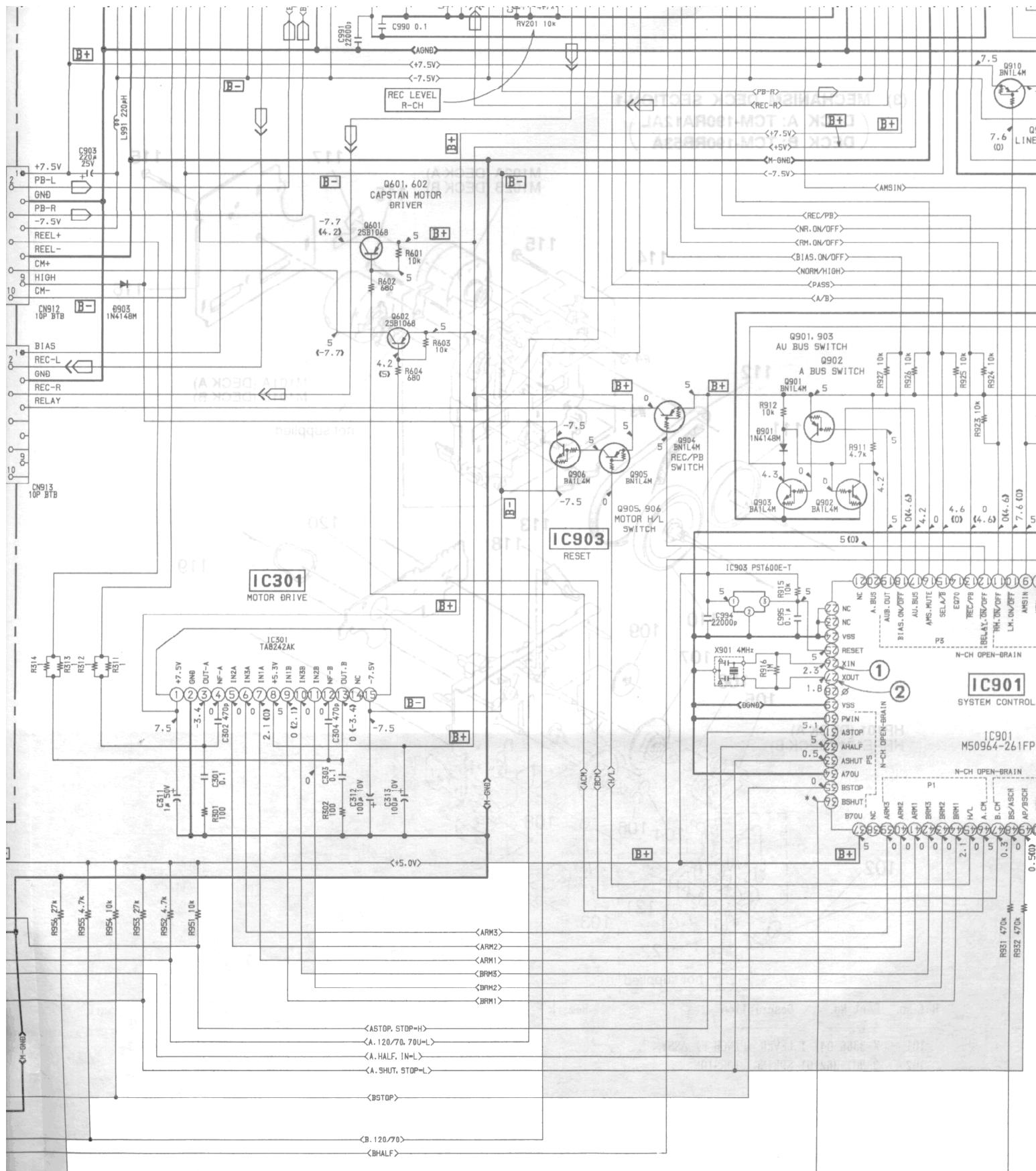




7 8 9 10 11 12 13 14 15

【MAIN BOARD】





16

17

18

19

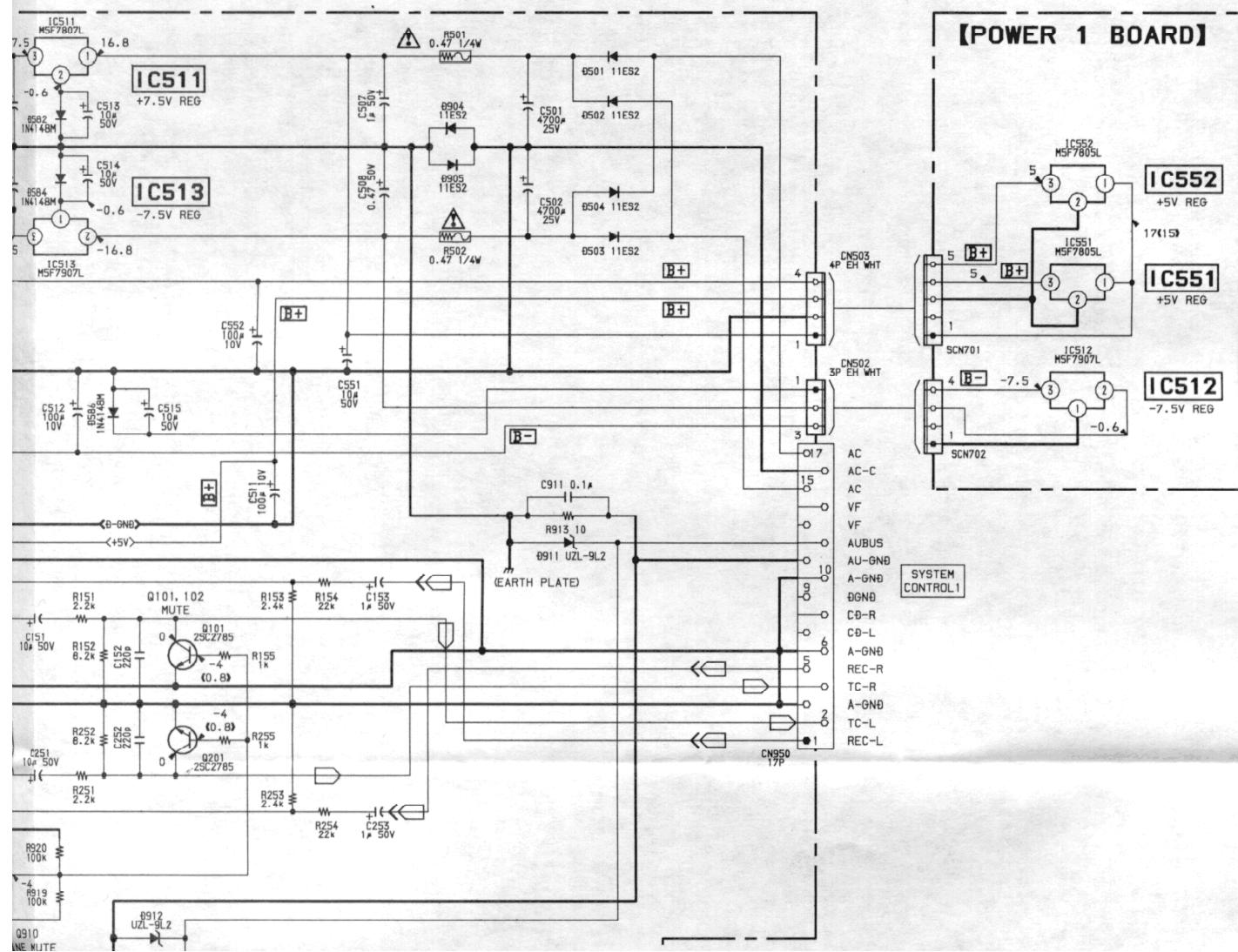
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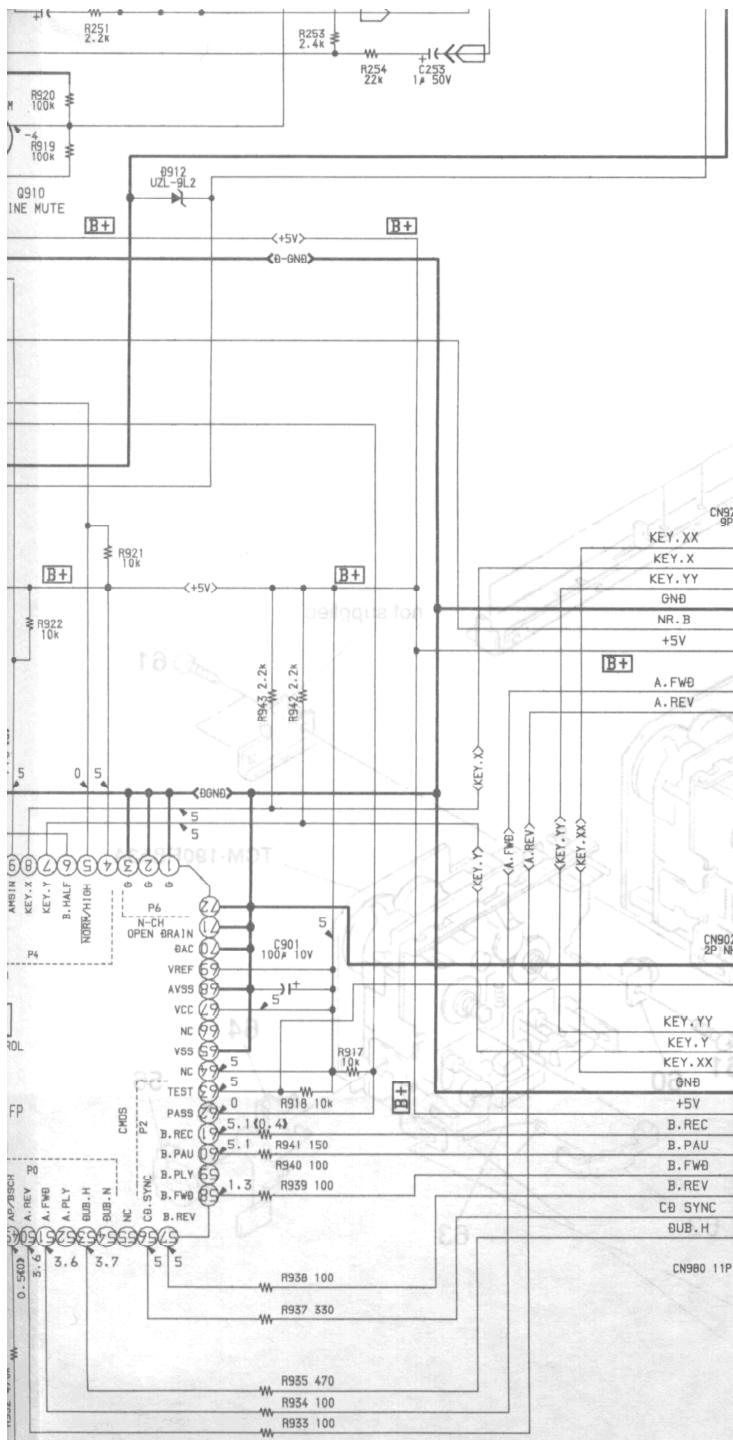
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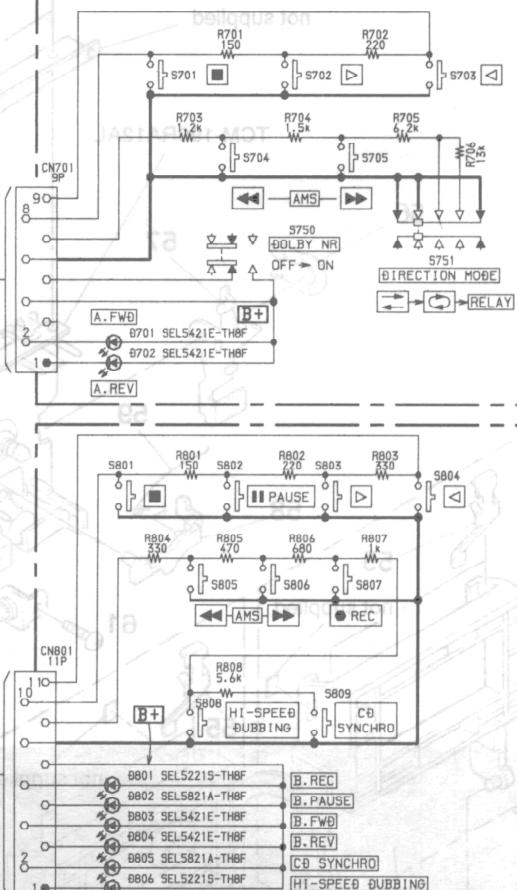
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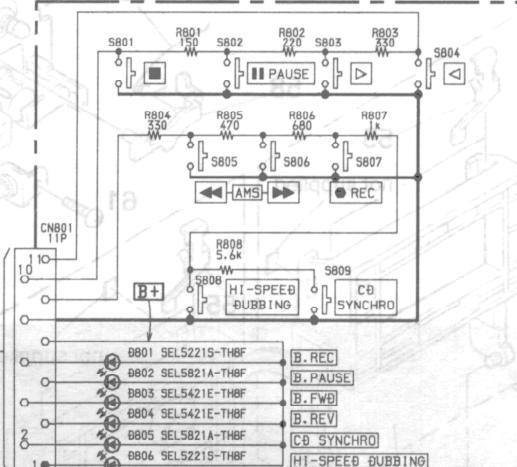


(S) MECHANISM DECK CHASSIS SECTION

PANEL (A) BOARD



PANEL (B) BOARD



NOTE

- All capacitors are in μF unless otherwise noted. pF: μF 50W or less are not indicated except for electrolytics and tantalums.

: nonflammable resistor.

: internal component.

: panel designation.

Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

• Signal path.

: PB (DECK A)

: PB (DECK B)

: REC (DECK B)

- : B+ Line.
- : B- Line.
- : adjustment for repair.

• Voltages and waveforms are dc with respect to ground under no-signal conditions.

no mark: PLAY (DECK B)

() : PLAY (DECK A)

{ } : REC (DECK B)

* : can not be measured.

• Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.

• Waveforms are taken with a oscilloscope.

Voltage variations may be noted due to normal production tolerances.

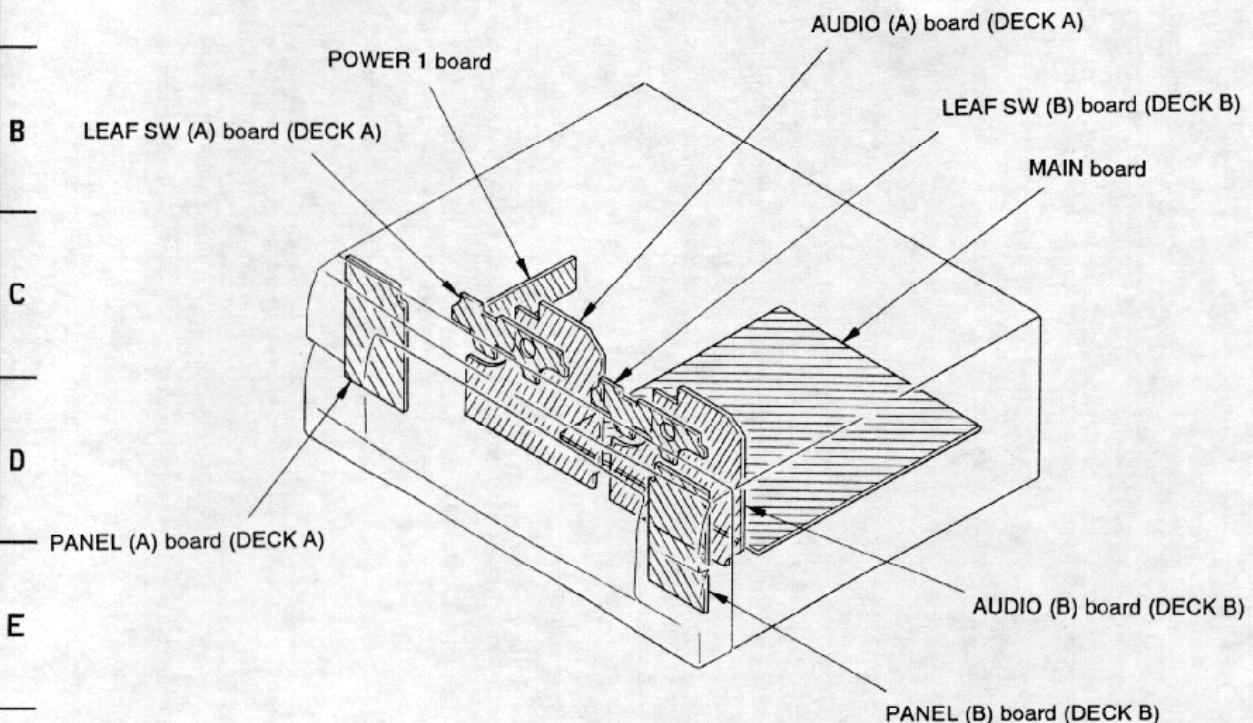
• Circled numbers refer to waveforms.

• AC voltage readings in the bias oscillator with a VTM.

TC-N500

A

• Circuit Boards Location

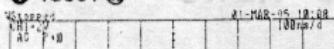


F

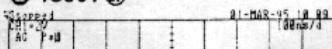
• Waveforms
(MAIN BOARD)

G

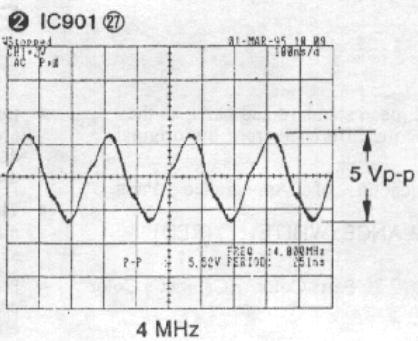
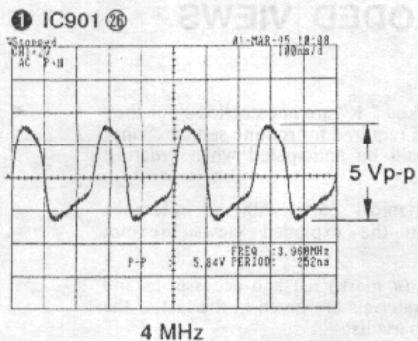
① IC901 ②



② IC901 ⑦

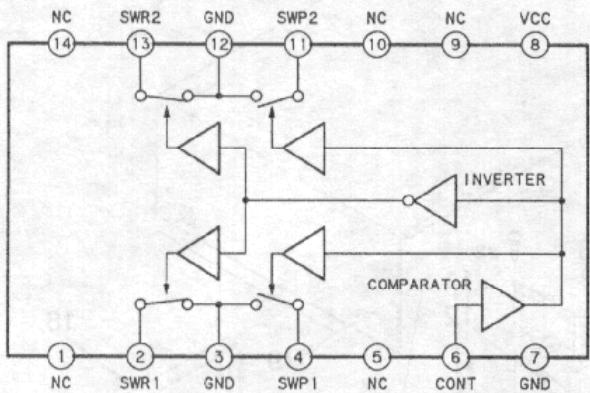


• Waveforms
(MAIN BOARD)

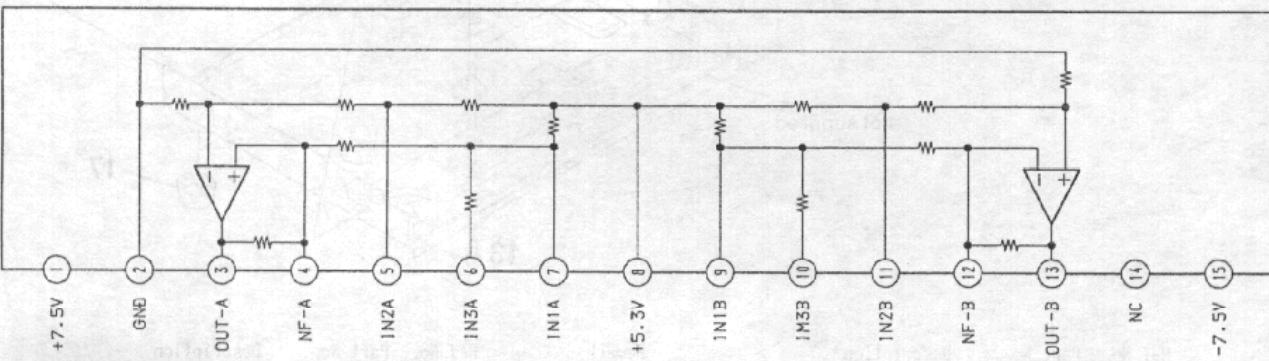


• IC Block Diagrams

IC31B μ PC1330GR (AUDIO (B) BOARD)



IC301 TA8242AK (MAIN BOARD)



SECTION 6

EXPLODED VIEWS

NOTE:

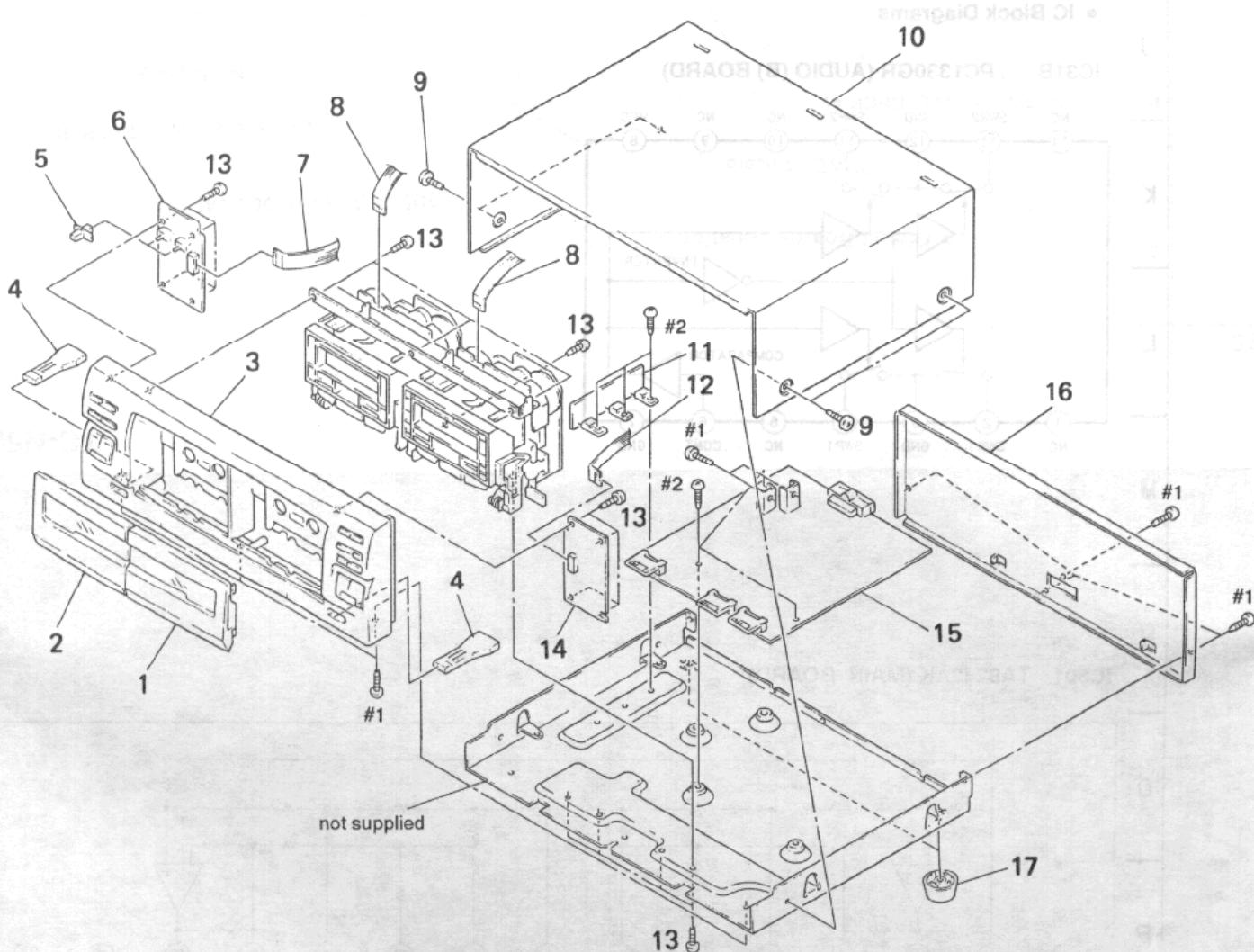
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)
 ↑ ↑
 Parts Color Cabinet's Color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

- Abbreviation

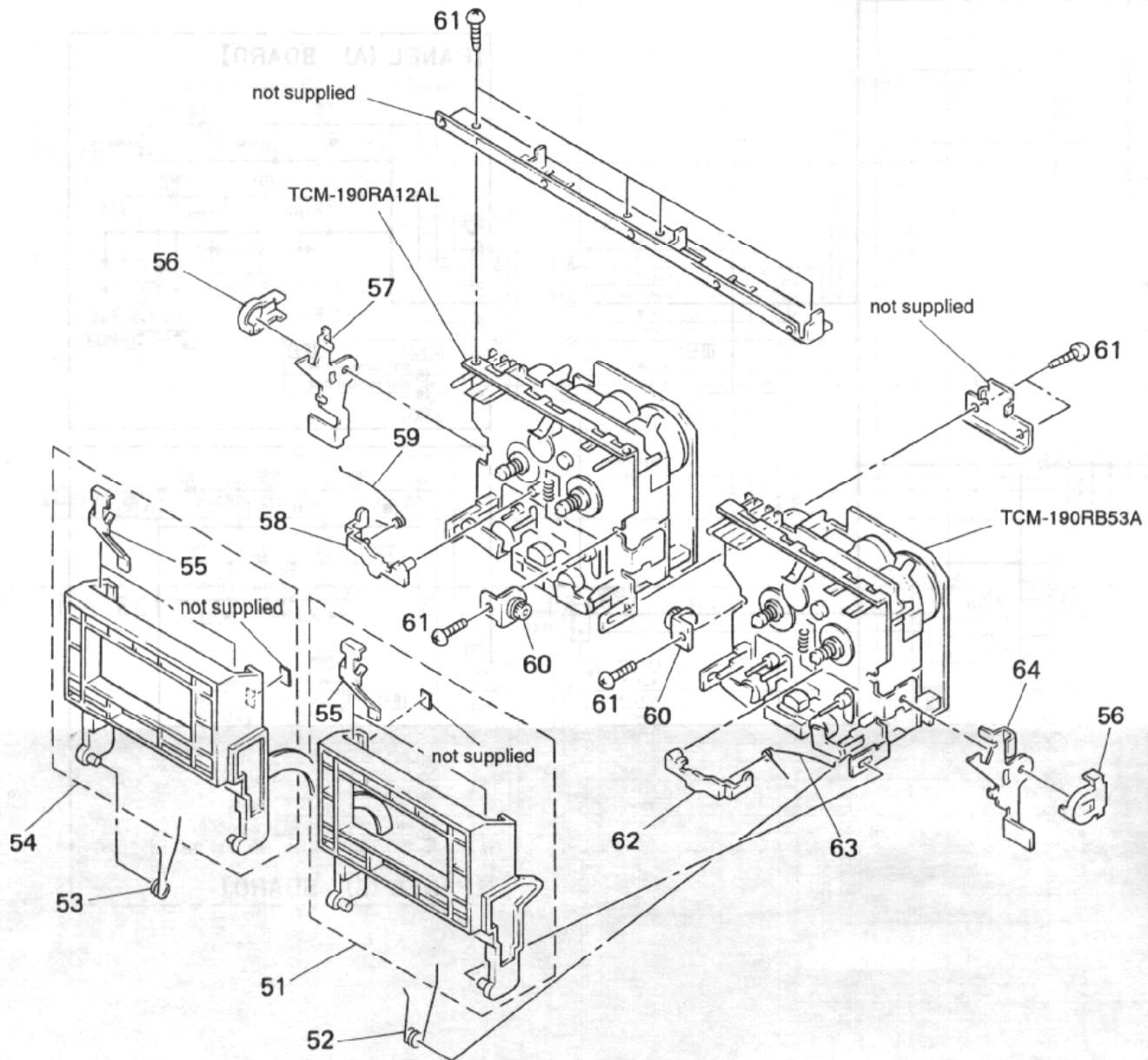
IT	: Italian
G	: German
AR	: Argentine
SP	: Singapore
MY	: Malaysia
EE	: East European
AU	: Australian
EA	: Saudi Arabia
MX	: Mexican

(1) CHASSIS SECTION



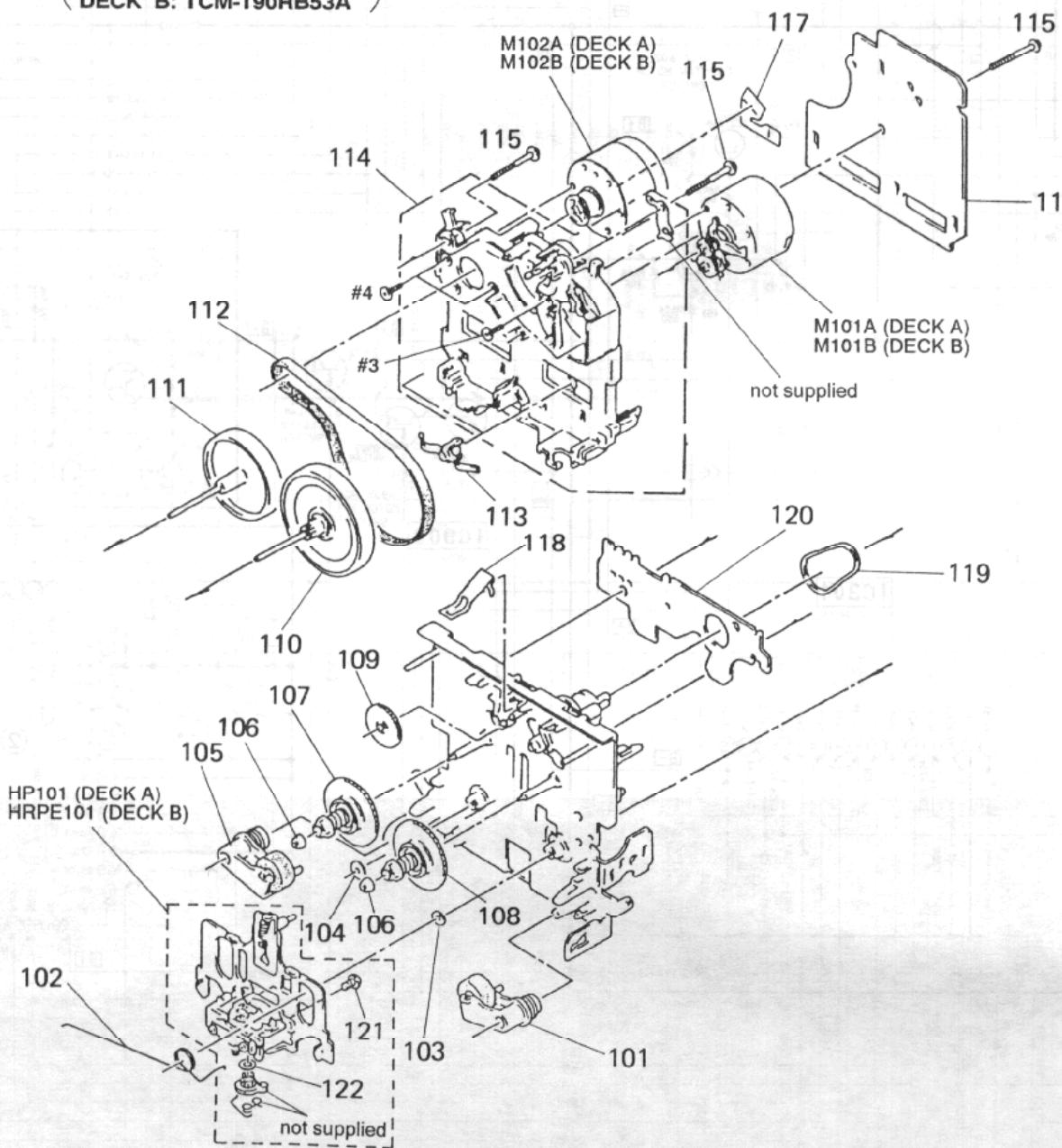
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3369-643-1	LID (B DECK) ASSY, CASSETTE		* 11	1-655-415-13	POWER 1 BOARD	
2	X-3369-642-1	LID (A DECK) ASSY, CASSETTE		12	1-590-488-11	WIRE, FLAT TYPE (11 CORE)	
3	X-3369-668-1	PANEL ASSY, FRONT		13	4-951-620-01	SCREW (2.6X8), +BVTP	
4	3-918-281-01	BUTTON (EJECT)		* 14	1-655-023-13	PANEL (B) BOARD	
5	4-962-707-01	KNOB, SLIDE		* 15	A-2007-332-A	MAIN BOARD, COMPLETE	
* 6	1-655-022-13	PANEL (A) BOARD		* 16	3-918-326-01	PANEL, BACK (AEP, UK, IT, G)	
7	1-769-664-11	WIRE (FLAT TYPE) (9 CORE)		* 16	3-918-326-11	PANEL, BACK (E, AR, SP, MY, EE)	
8	1-590-574-11	WIRE, FLAT TYPE (7 CORE)		* 16	3-918-326-21	PANEL, BACK (AU, EA, PX, MX)	
9	3-363-099-01	SCREW (CASE 3 TP2)		17	X-4941-228-1	FOOT ASSY	
10	4-969-778-31	CASE					

(2) MECHANISM DECK CHASSIS SECTION



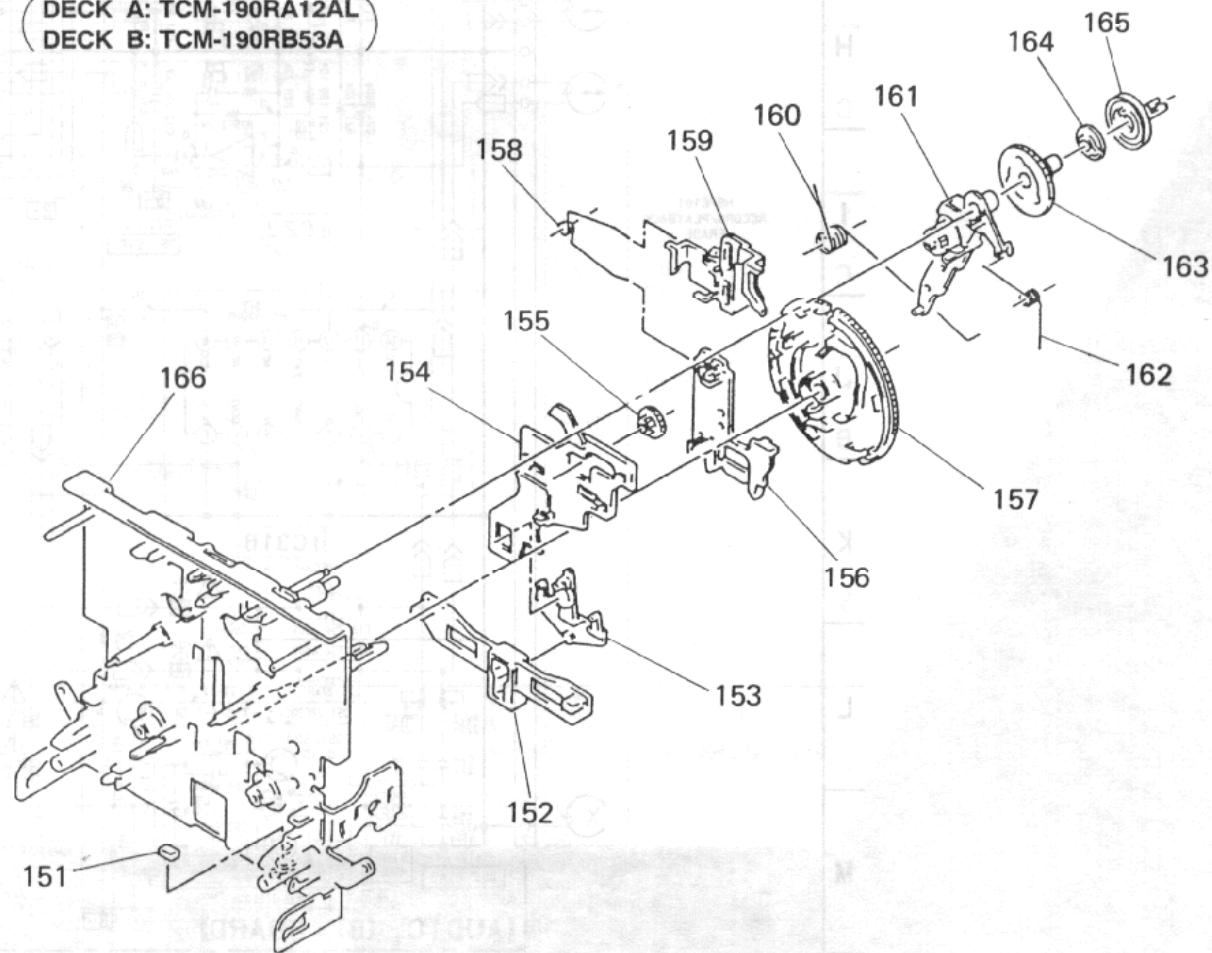
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	A-4325-164-A	HOLDER (R) ASSY, CASSETTE		58	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
52	3-354-960-01	SPRING (LOADING R), TORSION		59	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
53	3-354-959-01	SPRING (LOADING L), TORSION		60	3-354-963-01	DAMPER	
54	A-4325-163-A	HOLDER (L) ASSY, CASSETTE		61	4-951-620-01	SCREW (2.6X8), +BVTP	
55	3-308-823-11	DETENT, CASSETTE		62	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
56	3-354-957-01	JOINT (LOCK LEVER)		63	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
* 57	3-354-953-01	LEVER (LOCK LEVER L)		* 64	3-354-954-01	LEVER (LOCK LEVER R)	

(3) MECHANISM DECK SECTION-1
(DECK A: TCM-190RA12AL)
(DECK B: TCM-190RB53A)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-3366-047-1	LEVER (PINCH F) ASSY		* 116	A-2007-134-A	AUDIO BOARD, COMPLETE (DECK B)	
102	3-907-362-01	SPRING, TORSION		* 116	A-2007-266-A	AUDIO BOARD, COMPLETE (DECK A)	
103	3-356-713-01	WASHER		117	1-638-983-11	MOTOR FLEXIBLE BOARD	
104	3-356-714-01	WASHER		118	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
105	X-3366-048-1	LEVER (PINCH R) ASSY		119	3-359-466-01	BELT (FR), SQUARE	
106	3-362-308-01	CAP (REEL)		* 120	1-638-020-11	LEAF SW BOARD (DECK A)	
107	X-3366-971-1	TABLE ASSY (B), REEL		* 120	1-638-020-11	LEAF SW BOARD (DECK B)	
108	X-3366-970-1	TABLE ASSY, REEL		121	3-388-848-01	SCREW (P2XG) (B TIGHT)	
109	3-359-424-01	GEAR (REV GEAR)		122	3-701-440-11	WASHER, 3.5 (DECK B)	
110	X-3367-629-1	FLYWHEEL (FWD) ASSY		122	3-701-440-21	WASHER, 3.5 (DECK A)	
111	X-3359-410-1	FLYWHEEL (REV) ASSY (DECK A)		HP101	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
111	X-3367-630-1	FLYWHEEL (REV) ASSY (DECK B)		HRPE101A	-2003-930-A	BASE ASSY, HEAD (DECK B)	
112	3-359-417-01	BELT (FLAT), CAPSTAN		M101A	X-3363-501-2	MOTOR ASSY (REEL) (DECK A)	
113	3-575-321-00	RETAINER, THRUST, CAPSTAN		M101B	X-3363-501-2	MOTOR ASSY (REEL) (DECK B)	
114	3-359-436-11	BASE (THRUST RETAINER), FITTING		M102A	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK A)	
115	3-359-414-01	SCREW (+PTPWHL 2X23)		M102B	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK B)	

(4) MECHANISM DECK SECTION-2
 (DECK A: TCM-190RA12AL)
 (DECK B: TCM-190RB53A)



Ref. No.	Part No.	Description	Remark
151	3-359-469-01	SPACER	
152	3-359-425-01	SLIDER (REVERSE SLIDER)	
153	3-359-426-01	LEVER (REVERSE LEVER)	
* 154	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)	
* 154	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)	
155	3-359-448-01	GEAR (TRIGGER)	
156	3-359-427-01	SLIDER (LEVERSE SLIDER)	
157	3-359-420-01	GEAR (CAM GEAR)	
158	3-359-454-01	SPRING, TORSION	
159	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)	

Ref. No.	Part No.	Description	Remark
159	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
160	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
161	X-3366-569-1	ARM ASSY, FR	
162	3-924-185-11	SPRING (FR ARM), TORSION	
163	3-359-419-11	GEAR (FR GEAR)	
164	3-359-421-01	CLUTCH (REEL DISK)	
165	3-359-418-01	PULLEY (FR PULLEY)	
166	X-3359-415-1	CHASSIS ASSY, MECHANICAL (DECK A)	
166	X-3363-790-1	CHASSIS ASSY, MECHANICAL (DECK B)	

SECTION 7 ELECTRICAL PARTS LIST

AUDIO (A)

AUDIO (B)

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

● Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u: μ , for example:

uA : μ A . . . uPA : μ PA . . .

uPB : μ PB . . . uPC : μ PC . . . uPD : μ PD . . .

● CAPACITORS

uF : μ F

● COILS

uH : μ H

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-2007-266-A	AUDIO (A) BOARD, COMPLETE (DECK A)			*****

< CAPACITOR >

C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-234-00	ELECT	22uF	20%	16V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-234-00	ELECT	22uF	20%	16V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C31	1-124-234-00	ELECT	22uF	20%	16V
C32	1-124-234-00	ELECT	22uF	20%	16V
C72	1-124-499-11	ELECT, NONPOLAR 1uF		20%	50V

< CONNECTOR >

* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD
CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P

< IC >

IC31A	8-759-106-02	IC	uPC4570G2
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< JUMPER RESISTOR >

JW1	1-216-295-00	CONDUCTOR, CHIP
JW51	1-216-296-00	METAL CHIP
JW52	1-216-296-00	METAL CHIP
JW53	1-216-296-00	METAL CHIP
JW54	1-216-296-00	METAL CHIP

< TRANSISTOR >

Q71A	8-729-216-22	TRANSISTOR	2SA1162
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< RESISTOR >

R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
R12	1-216-025-00	METAL GLAZE	100	5%	1/10W
R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R14	1-216-068-00	METAL CHIP			6.2K 5% 1/10W
R21	1-216-099-00	METAL CHIP			120K 5% 1/10W

R22	1-216-025-00	METAL GLAZE	100	5%	1/10W
R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R24	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R31	1-216-033-00	METAL CHIP	220	5%	1/10W
R32	1-216-033-00	METAL CHIP	220	5%	1/10W

R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R72	1-216-081-00	METAL CHIP	22K	5%	1/10W
R73	1-216-089-00	METAL CHIP	47K	5%	1/10W
R74	1-216-089-00	METAL CHIP	47K	5%	1/10W
R807	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-426-11	CARBON	5.6K	5%	1/4W

< VARIABLE RESISTOR >

RV11A	1-241-761-11	RES, ADJ, CARBON	1K
RV21A	1-241-761-11	RES, ADJ, CARBON	1K
RV71A	1-241-630-11	RES, ADJ, CARBON	10K
RV72A	1-241-630-11	RES, ADJ, CARBON	10K

Ref. No.	Part No.	Description			Remark
*	A-2007-134-A	AUDIO (B) BOARD, COMPLETE (DECK B)			*****

< CAPACITOR >

C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C13	1-136-153-00	FILM	0.01uF	5%	50V
C14	1-126-177-11	ELECT	100uF	20%	10V
C15	1-124-234-00	ELECT	22uF	20%	16V
C16	1-136-273-00	FILM	75PF	5%	630V
C17	1-164-080-11	CERAMIC	390PF	10%	50V
C18	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C23	1-136-153-00	FILM	0.01uF	5%	50V
C24	1-126-177-11	ELECT	100uF	20%	10V
C25	1-124-234-00	ELECT	22uF	20%	16V
C26	1-136-273-00	FILM	75PF	5%	630V
C27	1-164-080-11	CERAMIC	390PF	10%	50V

AUDIO (B)

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark
C28	1-163-103-00	CERAMIC CHIP	27PF	5%	50V			< TRANSISTOR >	
C31	1-124-234-00	ELECT	22uF	20%	16V	Q51	8-729-142-46	TRANSISTOR	2SC2001-LK
C32	1-124-234-00	ELECT	22uF	20%	16V	Q52	8-729-142-46	TRANSISTOR	2SC2001-LK
C33	1-124-234-00	ELECT	22uF	20%	16V	Q53	8-729-111-29	TRANSISTOR	2SD1616A-K
C51	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	Q71B	8-729-216-22	TRANSISTOR	2SA1162
C52	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V			< RESISTOR >	
C53	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V	R11	1-216-099-00	METAL CHIP	120K 5% 1/10W
C54	1-136-559-11	FILM	0.0047uF	5%	630V	R12	1-216-033-00	METAL CHIP	220 5% 1/10W
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V	R13	1-216-081-00	METAL CHIP	22K 5% 1/10W
C57	1-164-346-11	CERAMIC CHIP	1uF		16V	R14	1-216-075-00	METAL CHIP	12K 5% 1/10W
C58	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V	R15	1-216-107-00	METAL CHIP	270K 5% 1/10W
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V			< CONNECTOR >	
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD				▲R16	1-249-430-11	CARBON	12K 5% 1/4W
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD				R21	1-216-099-00	METAL CHIP	120K 5% 1/10W
CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P				R22	1-216-033-00	METAL CHIP	220 5% 1/10W
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P				R23	1-216-081-00	METAL CHIP	22K 5% 1/10W
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P				R24	1-216-075-00	METAL CHIP	12K 5% 1/10W
						R25	1-216-107-00	METAL CHIP	270K 5% 1/10W
						▲R26	1-249-430-11	CARBON	12K 5% 1/4W
						R31	1-216-033-00	METAL CHIP	220 5% 1/10W
IC31B	8-759-249-21	IC	uPC1330GR			R32	1-216-033-00	METAL CHIP	220 5% 1/10W
IC32	8-759-106-02	IC	uPC4570G2			R33	1-216-073-00	METAL CHIP	10K 5% 1/10W
								< JUMPER RESISTOR >	
JW1	1-216-295-00	CONDUCTOR, CHIP				▲R41	1-249-393-11	CARBON	10 5% 1/4W
JW2	1-216-295-00	CONDUCTOR, CHIP				▲R42	1-249-393-11	CARBON	10 5% 1/4W
JW11	1-216-296-00	METAL CHIP	0	5%	1/8W	R51	1-216-075-00	METAL CHIP	12K 5% 1/10W
JW12	1-216-296-00	METAL CHIP	0	5%	1/8W	R52	1-216-075-00	METAL CHIP	12K 5% 1/10W
JW13	1-216-296-00	METAL CHIP	0	5%	1/8W	R53	1-216-073-00	METAL CHIP	10K 5% 1/10W
JW14	1-216-296-00	METAL CHIP	0	5%	1/8W	R54	1-216-309-00	METAL CHIP	5.6 5% 1/10W
JW15	1-216-296-00	METAL CHIP	0	5%	1/8W	R55	1-216-309-00	METAL CHIP	5.6 5% 1/10W
JW16	1-216-296-00	METAL CHIP	0	5%	1/8W	R56	1-216-298-00	METAL CHIP	2.2 5% 1/10W
JW17	1-216-296-00	METAL CHIP	0	5%	1/8W	R71	1-216-082-00	METAL GLAZE	24K 5% 1/10W
JW18	1-216-296-00	METAL CHIP	0	5%	1/8W	R72	1-216-081-00	METAL CHIP	22K 5% 1/10W
JW19	1-216-296-00	METAL CHIP	0	5%	1/8W	R73	1-216-089-00	METAL CHIP	47K 5% 1/10W
JW20	1-216-296-00	METAL CHIP	0	5%	1/8W	R74	1-216-089-00	METAL CHIP	47K 5% 1/10W
JW21	1-216-296-00	METAL CHIP	0	5%	1/8W			< VARIABLE RESISTOR >	
JW22	1-216-296-00	METAL CHIP	0	5%	1/8W	RV11B	1-241-761-11	RES. ADJ, CARBON 1K	
JW23	1-216-296-00	METAL CHIP	0	5%	1/8W	RV12	1-238-551-11	RES. ADJ, CARBON 220K	
JW24	1-216-296-00	METAL CHIP	0	5%	1/8W	RV21B	1-241-761-11	RES. ADJ, CARBON 1K	
JW25	1-216-296-00	METAL CHIP	0	5%	1/8W	RV22	1-238-551-11	RES. ADJ, CARBON 220K	
JW26	1-216-296-00	METAL CHIP	0	5%	1/8W	RV71B	1-241-630-11	RES. ADJ, CARBON 10K	
JW27	1-216-296-00	METAL CHIP	0	5%	1/8W	RV72B	1-241-630-11	RES. ADJ, CARBON 10K	
								< COIL >	
L11	1-410-780-11	INDUCTOR	27uH			T51	1-406-419-11	COIL. BIAS OSCILLATION	
L21	1-410-780-11	INDUCTOR	27uH					*****	

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark					
*	1-638-020-11	LEAF SW (A) BOARD (DECK A)	*****					
< CONNECTOR >								
* CNP81 1-568-850-11 SOCKET, CONNECTOR 7P								
< IC >								
IC81A	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(HI)	R84	1-249-417-11	CARBON 1K 5% 1/4W			
< RESISTOR >								
R85	1-249-408-11	CARBON 180 5% 1/4W	< SWITCH >					
S81A	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP)	S82A	1-571-281-21	SWITCH, LEAF (70 UEQ)			
S86A	1-571-281-21	SWITCH, LEAF (HALF)	*****					
*	1-638-020-11	LEAF SW (B) BOARD (DECK B)	*****					
< CONNECTOR >								
* CNP81 1-568-850-11 SOCKET, CONNECTOR 7P								
< IC >								
IC81B	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(HI)	R81	1-249-414-11	CARBON 560 5% 1/4W			
< RESISTOR >								
R82	1-247-818-11	CARBON 300 5% 1/4W	R83	1-247-834-11	CARBON 1.3K 5% 1/4W			
R84	1-249-417-11	CARBON 1K 5% 1/4W	R85	1-249-408-11	CARBON 180 5% 1/4W			
< SWITCH >								
S81B	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP)	S82B	1-571-281-21	SWITCH, LEAF (70 UEQ)			
S83B	1-571-281-21	SWITCH, LEAF (METAL)	S84	1-571-281-21	SWITCH, LEAF (REC-A)			
S85	1-571-281-21	SWITCH, LEAF (REC-B)	*****					
S86B	1-571-281-21	SWITCH, LEAF (HALF)	*****					

LEAF SW (A)		LEAF SW (B)		MAIN					
Ref. No.	Part No.	Description		Remark					
*	A-2007-332-A	MAIN BOARD, COMPLETE		*****					
1-537-770-11 TERMINAL BOARD, GROUND									
7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S									
< CAPACITOR >									
C101	1-124-907-11	ELECT	10uF	20%	50V				
C102	1-124-907-11	ELECT	10uF	20%	50V				
C111	1-137-368-11	FILM	0.0047uF	5%	50V				
C112	1-162-291-31	CERAMIC	560PF	10%	50V				
C113	1-137-399-11	FILM	0.1uF	5%	50V				
C115	1-124-903-11	ELECT	1uF	20%	50V				
C116	1-124-902-00	ELECT	0.47uF	20%	50V				
C117	1-124-907-11	ELECT	10uF	20%	50V				
C131	1-162-600-11	CERAMIC	0.0047uF	20%	16V				
C132	1-162-302-11	CERAMIC	0.0022uF	20%	16V				
C133	1-124-902-00	ELECT	0.47uF	20%	50V				
C151	1-124-907-11	ELECT	10uF	20%	50V				
C152	1-162-286-31	CERAMIC	220PF	10%	50V				
C153	1-124-903-11	ELECT	1uF	20%	50V				
C211	1-137-368-11	FILM	0.0047uF	5%	50V				
C212	1-162-291-31	CERAMIC	560PF	10%	50V				
C213	1-137-399-11	FILM	0.1uF	5%	50V				
C215	1-124-903-11	ELECT	1uF	20%	50V				
C216	1-124-902-00	ELECT	0.47uF	20%	50V				
C217	1-124-907-11	ELECT	10uF	20%	50V				
C251	1-124-907-11	ELECT	10uF	20%	50V				
C252	1-162-286-31	CERAMIC	220PF	10%	50V				
C253	1-124-903-11	ELECT	1uF	20%	50V				
C301	1-164-159-11	CERAMIC	0.1uF	50V					
C302	1-162-290-31	CERAMIC	470PF	10%	50V				
C303	1-164-159-11	CERAMIC	0.1uF	50V					
C304	1-162-290-31	CERAMIC	470PF	10%	50V				
C311	1-124-903-11	ELECT	1uF	20%	50V				
C312	1-124-443-00	ELECT	100uF	20%	10V				
C313	1-124-443-00	ELECT	100uF	20%	10V				
C501	1-124-564-11	ELECT	4700uF	20%	25V				
C502	1-124-564-11	ELECT	4700uF	20%	25V				
C505	1-124-443-00	ELECT	100uF	20%	10V				
C506	1-124-443-00	ELECT	100uF	20%	10V				
C507	1-124-903-11	ELECT	1uF	20%	50V				
C508	1-124-902-00	ELECT	0.47uF	20%	50V				
C511	1-124-443-00	ELECT	100uF	20%	10V				
C512	1-124-443-00	ELECT	100uF	20%	10V				
C513	1-124-907-11	ELECT	10uF	20%	50V				
C514	1-124-907-11	ELECT	10uF	20%	50V				
C515	1-124-907-11	ELECT	10uF	20%	50V				
C551	1-124-907-11	ELECT	10uF	20%	50V				

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark
C552	1-124-443-00	ELECT	100uF	20%	10V	L991	1-410-525-11	INDUCTOR	220uH
C901	1-124-584-00	ELECT	100uF	20%	10V			< COIL >	
C903	1-124-120-11	ELECT	220uF	20%	25V			< TRANSISTOR >	
< CONNECTOR >									
CN502	1-564-506-11	PLUG, CONNECTOR 3P				Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE
* CN503	1-564-507-11	PLUG, CONNECTOR 4P				Q201	8-729-119-78	TRANSISTOR	2SC2785-HFE
* CN902	1-560-060-00	PIN, CONNECTOR 2P				Q601	8-729-116-56	TRANSISTOR	2SB1068-L
* CN911	1-580-784-11	CONNECTOR, BOARD TO BOARD				Q602	8-729-116-56	TRANSISTOR	2SB1068-L
* CN912	1-580-784-11	CONNECTOR, BOARD TO BOARD				Q901	8-729-900-65	TRANSISTOR	DTA144ES
* CN913	1-580-784-11	CONNECTOR, BOARD TO BOARD				Q902	8-729-900-89	TRANSISTOR	DTC144ES
* CN914	1-568-826-11	SOCKET, CONNECTOR 7P				Q903	8-729-900-89	TRANSISTOR	DTC144ES
* CN915	1-568-826-11	SOCKET, CONNECTOR 7P				Q904	8-729-900-65	TRANSISTOR	DTA144ES
CN950	1-764-017-11	HOUSING, CONNECTOR(PC BOARD)17P				Q905	8-729-900-65	TRANSISTOR	DTA144ES
* CN970	1-568-828-11	SOCKET, CONNECTOR 9P				Q906	8-729-900-89	TRANSISTOR	DTC144ES
* CN980	1-568-830-11	SOCKET, CONNECTOR 11P				Q910	8-729-900-65	TRANSISTOR	DTA144ES
< RESISTOR >									
D501	8-719-024-99	DIODE	11ES2-NTA2B	R111	1-249-430-11	CARBON	12K	5%	1/4W
D502	8-719-024-99	DIODE	11ES2-NTA2B	R112	1-249-431-11	CARBON	15K	5%	1/4W
D503	8-719-024-99	DIODE	11ES2-NTA2B	R113	1-249-428-11	CARBON	8.2K	5%	1/4W
D504	8-719-024-99	DIODE	11ES2-NTA2B	R114	1-249-425-11	CARBON	4.7K	5%	1/4W
D505	8-719-987-63	DIODE	1N4148M	R115	1-247-883-00	CARBON	150K	5%	1/4W
D582	8-719-987-63	DIODE	1N4148M	R116	1-247-868-11	CARBON	36K	5%	1/4W
D584	8-719-987-63	DIODE	1N4148M	R120	1-249-431-11	CARBON	15K	5%	1/4W
D586	8-719-987-63	DIODE	1N4148M	R131	1-249-431-11	CARBON	15K	5%	1/4W
D901	8-719-987-63	DIODE	1N4148M	R132	1-249-441-11	CARBON	100K	5%	1/4W
D902	8-719-987-63	DIODE	1N4148M	R133	1-247-887-00	CARBON	220K	5%	1/4W
D903	8-719-987-63	DIODE	1N4148M	R151	1-249-421-11	CARBON	2.2K	5%	1/4W
D904	8-719-024-99	DIODE	11ES2-NTA2B	R152	1-249-428-11	CARBON	8.2K	5%	1/4W
D905	8-719-024-99	DIODE	11ES2-NTA2B	R153	1-247-840-00	CARBON	2.4K	5%	1/4W
D911	8-719-933-54	DIODE	HZS9A2L	R154	1-249-433-11	CARBON	22K	5%	1/4W
D912	8-719-933-54	DIODE	HZS9A2L	R155	1-249-417-11	CARBON	1K	5%	1/4W
< IC >									
IC101	8-759-098-75	IC	HA12171NT	R210	1-215-451-00	METAL	18K	1%	1/4W
IC301	8-759-266-35	IC	TA8242AK	R211	1-249-430-11	CARBON	12K	5%	1/4W
IC511	8-759-604-86	IC	M5F7807	R212	1-249-431-11	CARBON	15K	5%	1/4W
IC513	8-759-604-90	IC	M5F7907	R213	1-249-428-11	CARBON	8.2K	5%	1/4W
IC901	8-759-250-60	IC	M50964-261FP	R214	1-249-425-11	CARBON	4.7K	5%	1/4W
IC903	8-759-165-82	IC	PST600E-T	R231	1-249-429-11	CARBON	10K	5%	1/4W
				R232	1-249-429-11	CARBON	10K	5%	1/4W
				R233	1-249-429-11	CARBON	10K	5%	1/4W
				R234	1-249-429-11	CARBON	10K	5%	1/4W
				R235	1-249-429-11	CARBON	10K	5%	1/4W
				R236	1-249-429-11	CARBON	10K	5%	1/4W
				R237	1-249-429-11	CARBON	10K	5%	1/4W
				R238	1-249-429-11	CARBON	10K	5%	1/4W
				R239	1-249-429-11	CARBON	10K	5%	1/4W
				R240	1-249-429-11	CARBON	10K	5%	1/4W

MAIN

PANEL (A)

Ref. No.	Part No.	Description			Remark
R241	1-247-864-11	CARBON	24K	5%	1/4W
R251	1-249-421-11	CARBON	2.2K	5%	1/4W
R252	1-249-428-11	CARBON	8.2K	5%	1/4W
R253	1-247-840-00	CARBON	2.4K	5%	1/4W
R254	1-249-433-11	CARBON	22K	5%	1/4W
R255	1-249-417-11	CARBON	1K	5%	1/4W
R301	1-247-807-31	CARBON	100	5%	1/4W
R302	1-247-807-31	CARBON	100	5%	1/4W
R311	1-249-381-11	CARBON	1	5%	1/4W
R312	1-249-381-11	CARBON	1	5%	1/4W
R313	1-249-381-11	CARBON	1	5%	1/4W
R314	1-249-381-11	CARBON	1	5%	1/4W
▲R501	1-217-371-00	FUSIBLE	0.47	10%	1/4W
▲R502	1-217-371-00	FUSIBLE	0.47	10%	1/4W
R601	1-249-429-11	CARBON	10K	5%	1/4W
R602	1-249-415-11	CARBON	680	5%	1/4W
R603	1-249-429-11	CARBON	10K	5%	1/4W
R604	1-249-415-11	CARBON	680	5%	1/4W
R911	1-249-425-11	CARBON	4.7K	5%	1/4W
R912	1-249-429-11	CARBON	10K	5%	1/4W
R913	1-249-393-11	CARBON	10	5%	1/4W
R915	1-249-429-11	CARBON	10K	5%	1/4W
R916	1-247-903-00	CARBON	1M	5%	1/4W
R917	1-249-429-11	CARBON	10K	5%	1/4W
R918	1-249-429-11	CARBON	10K	5%	1/4W
R919	1-249-441-11	CARBON	100K	5%	1/4W
R920	1-249-441-11	CARBON	100K	5%	1/4W
R921	1-249-429-11	CARBON	10K	5%	1/4W
R922	1-249-429-11	CARBON	10K	5%	1/4W
R923	1-249-429-11	CARBON	10K	5%	1/4W
R924	1-249-429-11	CARBON	10K	5%	1/4W
R925	1-249-429-11	CARBON	10K	5%	1/4W
R926	1-249-429-11	CARBON	10K	5%	1/4W
R927	1-249-429-11	CARBON	10K	5%	1/4W
R931	1-247-895-00	CARBON	470K	5%	1/4W
R932	1-247-895-00	CARBON	470K	5%	1/4W
R933	1-247-807-31	CARBON	100	5%	1/4W
R934	1-247-807-31	CARBON	100	5%	1/4W
R935	1-249-413-11	CARBON	470	5%	1/4W
R937	1-249-411-11	CARBON	330	5%	1/4W
R938	1-247-807-31	CARBON	100	5%	1/4W
R939	1-247-807-31	CARBON	100	5%	1/4W
R940	1-247-807-31	CARBON	100	5%	1/4W
R941	1-247-811-31	CARBON	150	5%	1/4W
R942	1-249-421-11	CARBON	2.2K	5%	1/4W
R943	1-249-421-11	CARBON	2.2K	5%	1/4W
R951	1-249-429-11	CARBON	10K	5%	1/4W
R952	1-249-425-11	CARBON	4.7K	5%	1/4W
R953	1-249-434-11	CARBON	27K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R954	1-249-429-11	CARBON	10K	5%	1/4W
R955	1-249-425-11	CARBON	4.7K	5%	1/4W
R956	1-249-434-11	CARBON	27K	5%	1/4W
< VARIABLE RESISTOR >					
RV101	1-238-600-11	RES, ADJ, CARBON	10K	5%	1/4W
RV201	1-238-600-11	RES, ADJ, CARBON	10K	5%	1/4W
< VIBRATOR >					
X901	1-577-358-21	VIBRATOR, CERAMIC (4 MHz)			

*	1-655-022-13	PANEL (A) BOARD			

< CONNECTOR >					
+ CN701	1-568-852-11	SOCKET, CONNECTOR 9P			
< DIODE >					
D701	8-719-046-42	DIODE	SEL5421E-TH8F		
D702	8-719-046-42	DIODE	SEL5421E-TH8F		
< RESISTOR >					
R701	1-247-811-31	CARBON	150	5%	1/4W
R702	1-249-409-11	CARBON	220	5%	1/4W
R703	1-249-418-11	CARBON	1.2K	5%	1/4W
R704	1-249-419-11	CARBON	1.5K	5%	1/4W
R705	1-247-850-11	CARBON	6.2K	5%	1/4W
R706	1-247-858-11	CARBON	13K	5%	1/4W
< SWITCH >					
S701	1-554-303-21	SWITCH, TACTILE (■)			
S702	1-554-303-21	SWITCH, TACTILE (▷)			
S703	1-554-303-21	SWITCH, TACTILE (◁)			
S704	1-554-303-21	SWITCH, TACTILE (◀)			
S705	1-554-303-21	SWITCH, TACTILE (▶)			
S750	1-571-298-11	SWITCH, SLIDE (DOLBY NR)			
S751	1-571-296-11	SWITCH, SLIDE (DIRECTION MODE)			

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

PANEL (B)**POWER 1**

Ref. No.	Part No.	Description	Remark
*	1-655-023-13	PANEL (B) BOARD	*****

< CONNECTOR >

* CN801 1-568-854-11 SOCKET, CONNECTOR 11P

< DIODE >

D801 8-719-046-46 DIODE SEL5221S-TH8F

D802 8-719-046-38 DIODE SEL5821A-TH8F

D803 8-719-046-42 DIODE SEL5421E-TH8F

D804 8-719-046-42 DIODE SEL5421E-TH8F

D805 8-719-046-38 DIODE SEL5821A-TH8F

D806 8-719-046-46 DIODE SEL5221S-TH8F

< RESISTOR >

R801 1-247-811-31 CARBON 150 5% 1/4W

R802 1-249-409-11 CARBON 220 5% 1/4W

R803 1-249-411-11 CARBON 330 5% 1/4W

R804 1-249-411-11 CARBON 330 5% 1/4W

R805 1-249-413-11 CARBON 470 5% 1/4W

R806 1-249-415-11 CARBON 680 5% 1/4W

R807 1-249-417-11 CARBON 1K 5% 1/4W

R808 1-249-426-11 CARBON 5.6K 5% 1/4W

< SWITCH >

S801 1-554-303-21 SWITCH, TACTILE (■)

S802 1-554-303-21 SWITCH, TACTILE (■)

S803 1-554-303-21 SWITCH, TACTILE (▷)

S804 1-554-303-21 SWITCH, TACTILE (◁)

S805 1-554-303-21 SWITCH, TACTILE (◀)

S806 1-554-303-21 SWITCH, TACTILE (▶)

S807 1-554-303-21 SWITCH, TACTILE (● REC)

S808 1-554-303-21 SWITCH, TACTILE (HI-SPEED DUBBING)

S809 1-554-303-21 SWITCH, TACTILE (CD SYNCHRO)

* 1-655-415-13 POWER 1 BOARD

< IC >

IC512 8-759-604-90 IC M5F7907

IC551 8-759-231-53 IC M5F7805

IC552 8-759-231-53 IC M5F7805

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	*****

7 1-769-664-11 WIRE (FLAT TYPE) (9 CORE)

8 1-590-574-11 WIRE, FLAT TYPE (7 CORE)

12 1-590-488-11 WIRE, FLAT TYPE (11 CORE)

HP101 A-2003-757-A BASE ASSY, HEAD (DECK A)

HRPE101A-2003-930-A BASE ASSY, HEAD (DECK B)

M101A X-3363-501-2 MOTOR ASSY (REEL) (DECK A)

M101B X-3363-501-2 MOTOR ASSY (REEL) (DECK B)

M102A X-3365-377-2 MOTOR ASSY (CAPSTAN) (DECK A)

M102B X-3365-377-2 MOTOR ASSY (CAPSTAN) (DECK B)

HARDWARE LIST

#1 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S

#2 7-682-548-04 SCREW +BVTT 3X8 (S)

#3 7-627-556-08 SCREW +P 2.6X2.8

#4 7-621-775-00 SCREW +B 2.6X3

CDP-N550C

SERVICE MANUAL

AEP Model

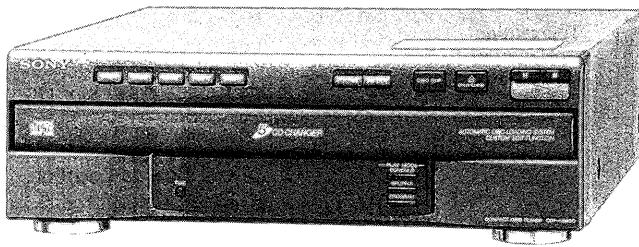
UK Model

E Model

Australian Model

Chinese Model

PX Model



CDP-N550C is the CD player section in
LBT-N550, N550K, N550P, N650AV.

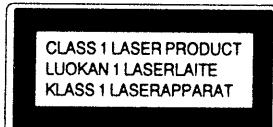
Model Name Using Similar Mechanism	HCD-N350
Base Unit Type	BU-5BD19
Optical Pick-up Type	KSS-213BA/S-N

SPECIFICATIONS

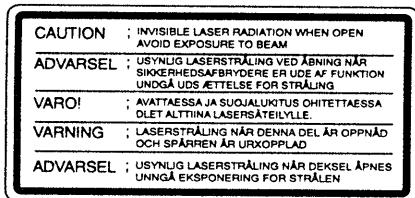
Laser	Semiconductor laser
Wavelength	780 - 790 nm
Mass	Approx. 4.5 kg
Dimensions	Approx. 355 x 120 x 380 mm (w/h/d, including projections)

COMPACT DISC PLAYER
SONY®

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



This caution label is located inside the unit.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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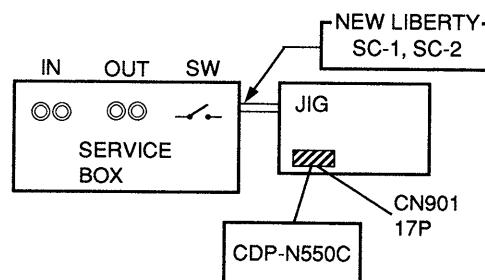
SERVICE NOTE

How to confirm the operation with a single unit

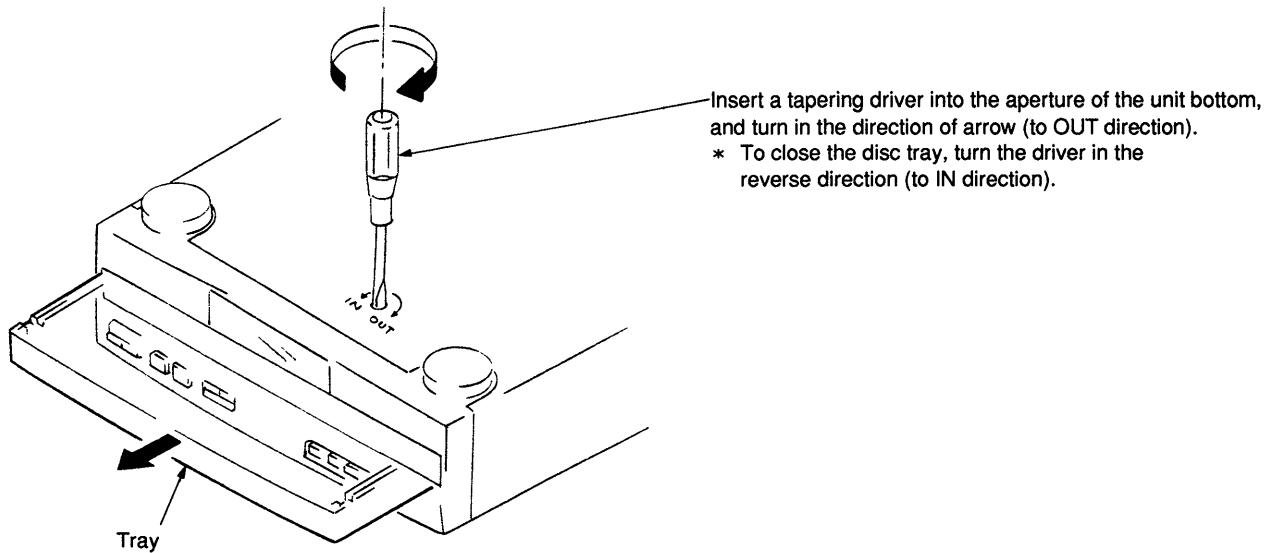
- Normally, this set does not operate with a single unit. The exclusive jig (J-2501-081-A) is necessary to operate the set with a single unit. The cable attached to set is used for connecting with the jig.

How to turn the power on

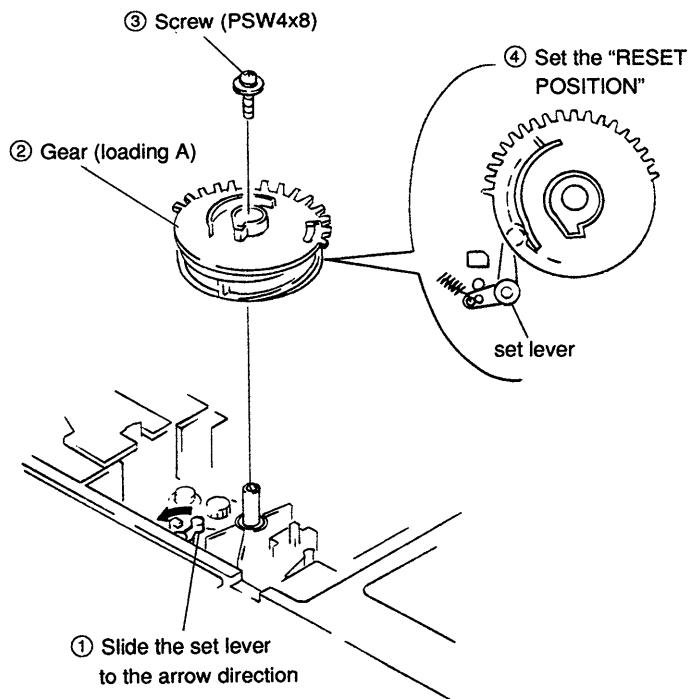
- If the power switch of the service box is set to ON, the power supply of the set is turned on. The sound signal is input/output through CN204 (SYSTEM CONTROL 1). In case of using the input/output terminal of SERVICE BOX, press **TIME** button, **▶▶▶** button and **■** button for more than three seconds at once.



HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

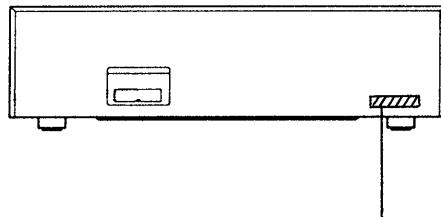


NOTE FOR GEAR (LOADING A) INSTALLATION



MODEL IDENTIFICATION

— BACK PANEL —



	Part No.
AEP, UK, G, IT Model	4-969-794-0□
E, AR, MY, SP, CH Model	4-969-794-1□
MX, PX, AUS, EA Model	4-969-794-2□

- Abbreviation

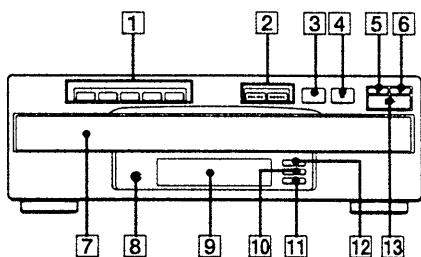
G	: German model.
IT	: Italian model.
AR	: Argentine model.
MY	: Malaysia model.
SP	: Singapore model.
CH	: Chinese model.
MX	: Mexican model.
AUS	: Australian model.
EA	: Saudi Arabia model.

SECTION 1

GENERAL

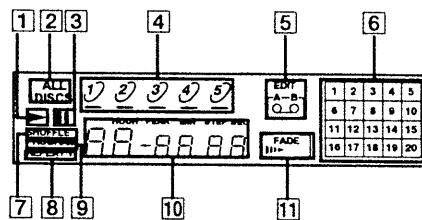
This section is extracted
from instruction manual.

Compact disc player



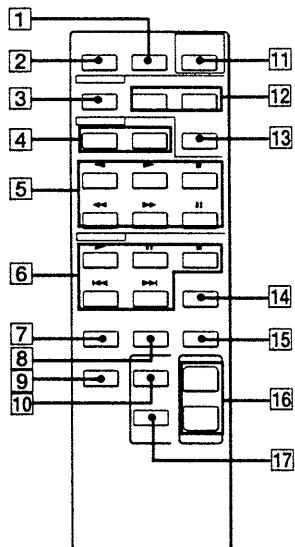
- [1] DISC SELECT 1-5 buttons (8, 9)
- [2] REPEAT button (8)
- [3] OPEN/CLOSE button (8)
- [4] STOP button (8, 9)
- [5] PAUSE button (8)
- [6] DISC SKIP button (8)
- [7] Disc tray
- [8] TIME button (8)
- [9] Display window (8)
- [10] SHUFFLE button (9)
- [11] PROGRAM button (9)
- [12] CONTINUE button (9)
- [13] PLAY button (8)

Compact disc player



- [1] Play indication (8)
- [2] ALL DISCS/1 DISC indications (8, 9, 10)
- [3] Pause indication
- [4] Disc calendar (8, 9, 10)
- [5] EDIT indications (16)
- [6] Music calendar (8, 9, 10)
- [7] SHUFFLE indication (9)
- [8] REPEAT indication (10)
- [9] PROGRAM indication (9, 16)
- [10] Playing time indications (8)
- [11] FADE indications

Remote (RM-S500L)



- [1] SLEEP button (21)
- [2] FUNCTION button (7, 14, 15, 18)
- [3] TUNER BAND button (11, 22)
- [4] DECK SELECT buttons (13)
- [5] TAPE operating buttons (13)
 - ◀/▶ (reverse side play/front side play)
 - ◀/▶ (fast leftward/fast rightward)
 - (stop)
 - (pause)
- [6] CD operating buttons (8)
 - ▶ (play)
 - ◀/▶ (AMS*)
 - (pause)
 - (stop)

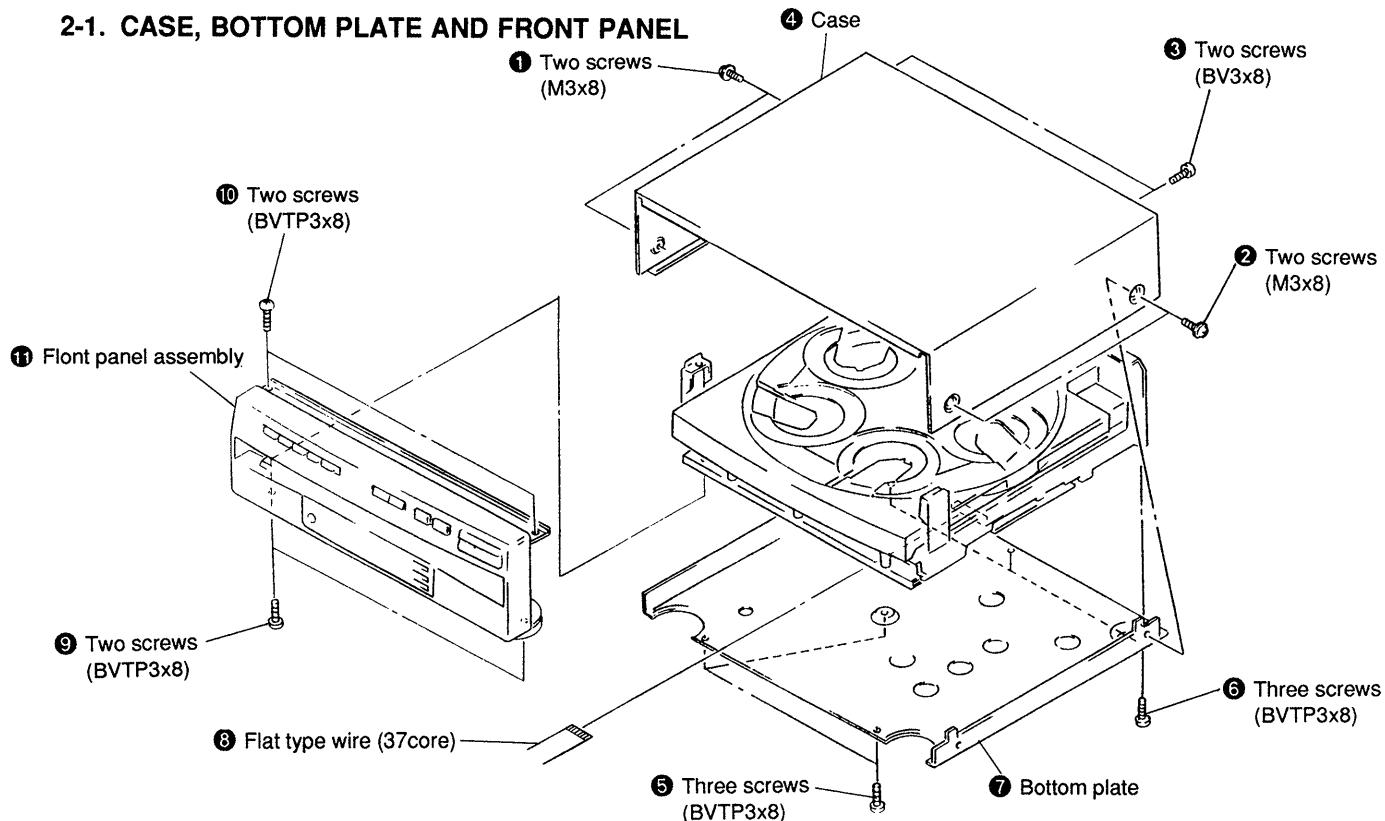
*AMS: Automatic Music Sensor
- [7] CHECK button (10, 16)
- [8] CLEAR button (10)
- [9] DISC SKIP button (8)
- [10] SELECT 1-5 button (19)
- [11] SYSTEM POWER button (7, 8, 11, 13)
- [12] PRESET (+/-) buttons (12)
- [13] STEREO/MONO button (11)
- [14] REPEAT button (10)
- [15] EDIT button (16)
- [16] VOL (volume) buttons (8)
- [17] P.FILE 1-5 button (20)

SECTION 2

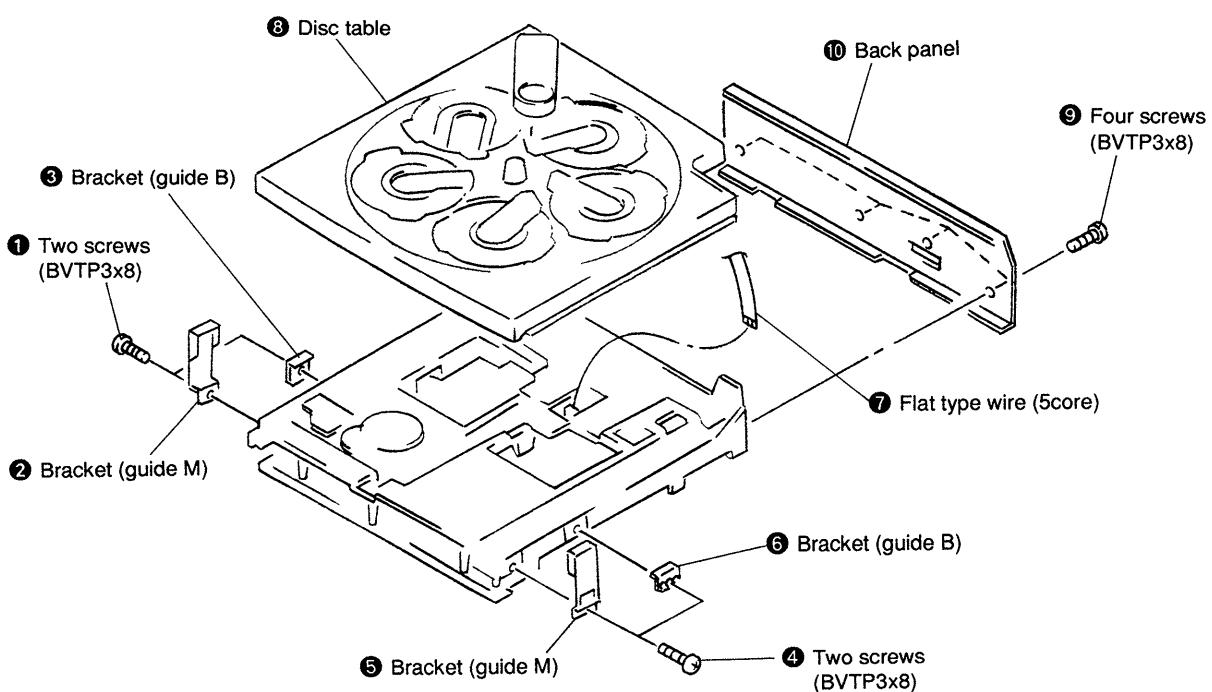
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

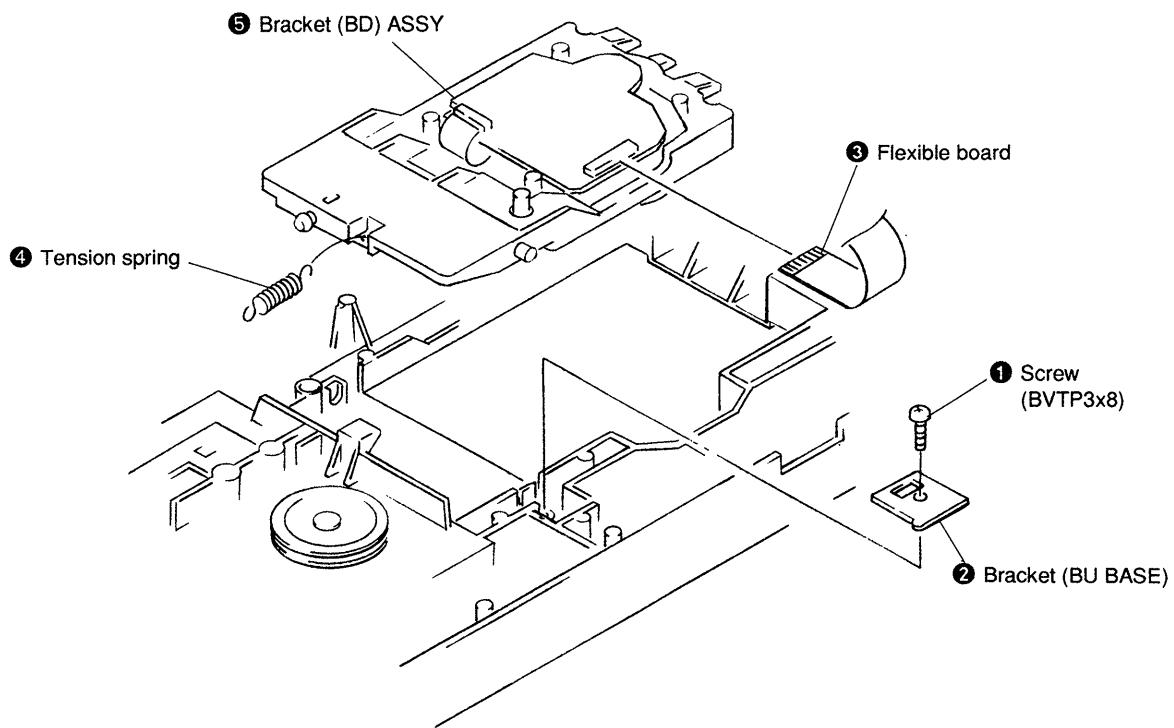
2-1. CASE, BOTTOM PLATE AND FRONT PANEL



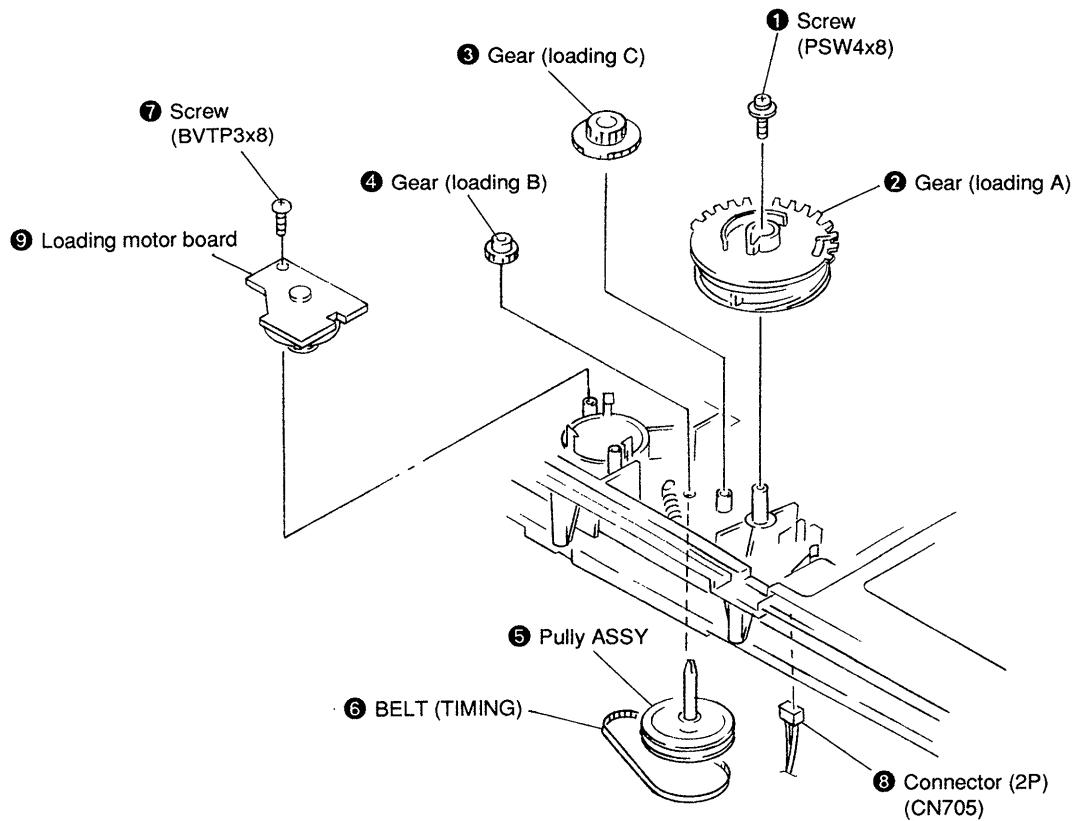
2-2. BACK PANEL AND DISC TABLE



2-3. BRACKET (BD) ASSY



2-4. LOADING MOTOR BOARD



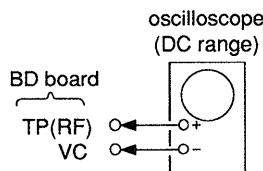
SECTION 3

ELECTRICAL ADJUSTMENTS

Note :

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than $10M\Omega$ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Adjust the focus bias adjustment when optical block is replaced.

Focus Bias Adjustment



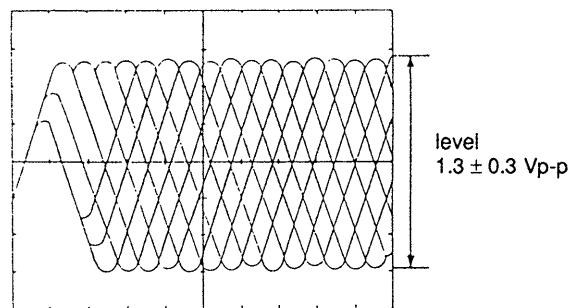
Procedure:

1. Connect oscilloscope to test point TP (RF). (GND terminal : VC)
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Adjust RV101 so that the waveform is clear.
(Clear RF signal waveform means that the shape “◊” can be clearly distinguished at the center of the waveform.)
5. After adjustment, check the RF signal level.

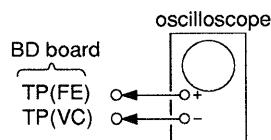
• RF signal

VOLT/DIV : 200 mV

TIME/DIV : 500 nS



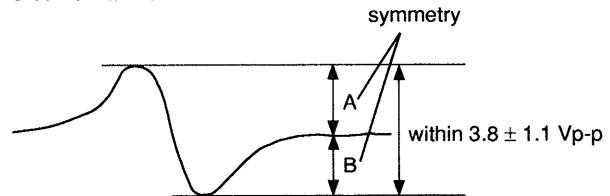
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and GND by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3.8 ± 1.1 Vp-p.

S-curve waveform

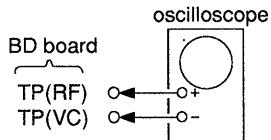


6. After check, remove the lead wire connected in step 2.

Note :

- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



Procedure :

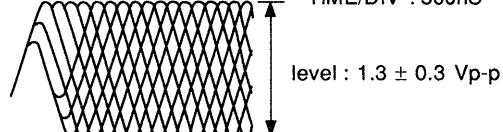
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

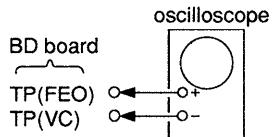
Clear RF signal waveform means that the shape “◊” can be clearly distinguished at the center of the waveform.

RF signal waveform

VOLT/DIV : 200mV
TIME/DIV : 500nS



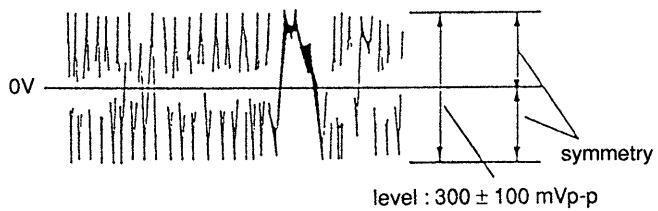
E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) on Main board to GND with a lead wire.
2. Connect oscilloscope to test point TP (TEO).
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

Traverse waveform



6. Remove the lead wire connected in step 1.

Focus/Tracking Gain Adjustment (RV102, RV103)

This gain has a margin, so even if it is slightly off.

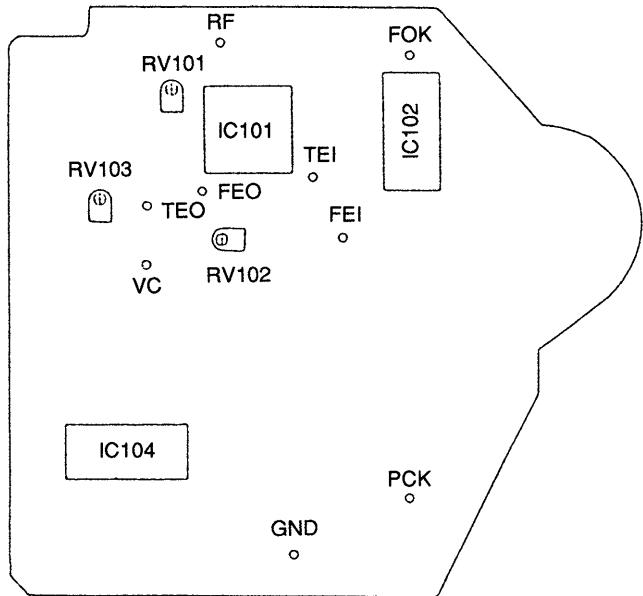
There is no problem.

Therefore, do not perform this adjustment.

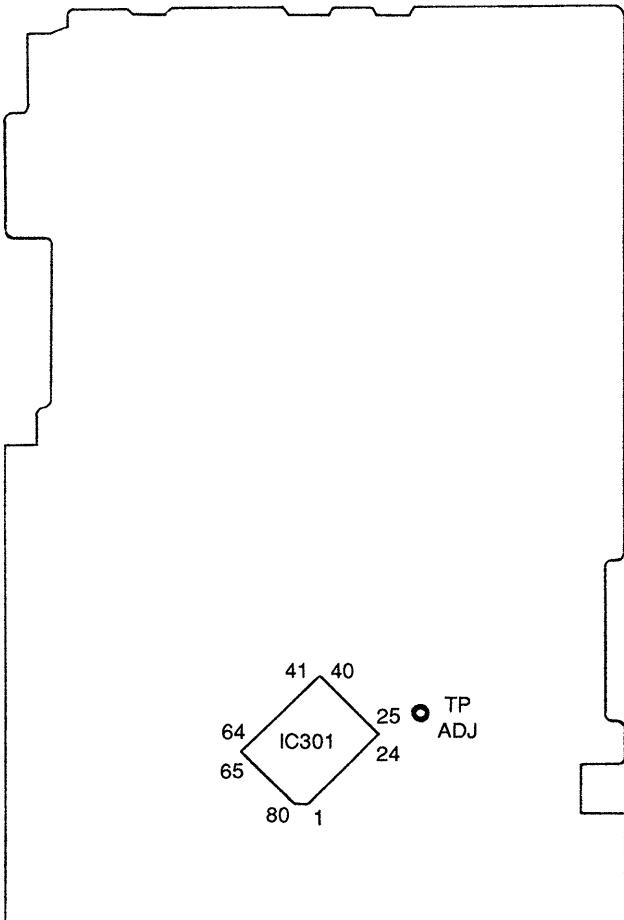
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Location :

【BD BOARD】 (Conductor Side)

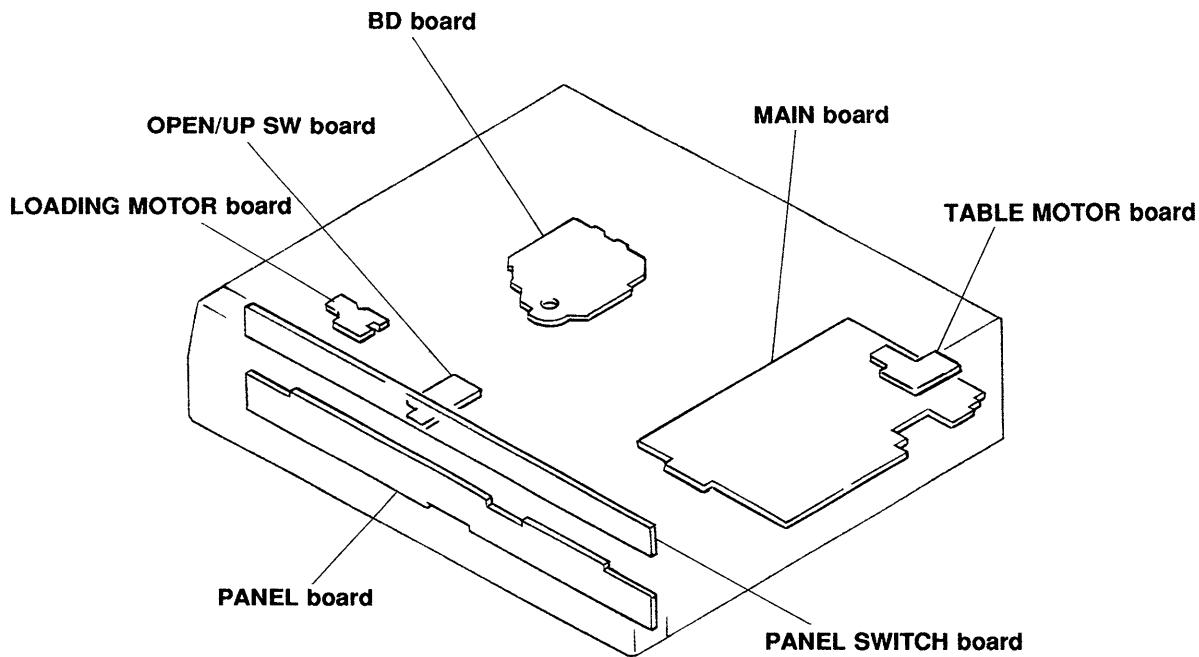


【MAIN BOARD】 (Conductor Side)



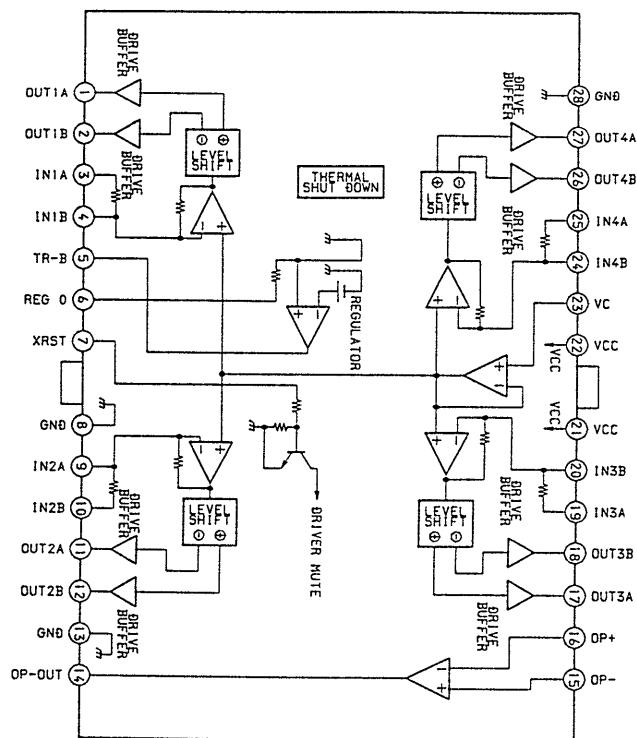
SECTION 4 DIAGRAMS

4-1. CIRCUIT BOARDS LOCATIONS

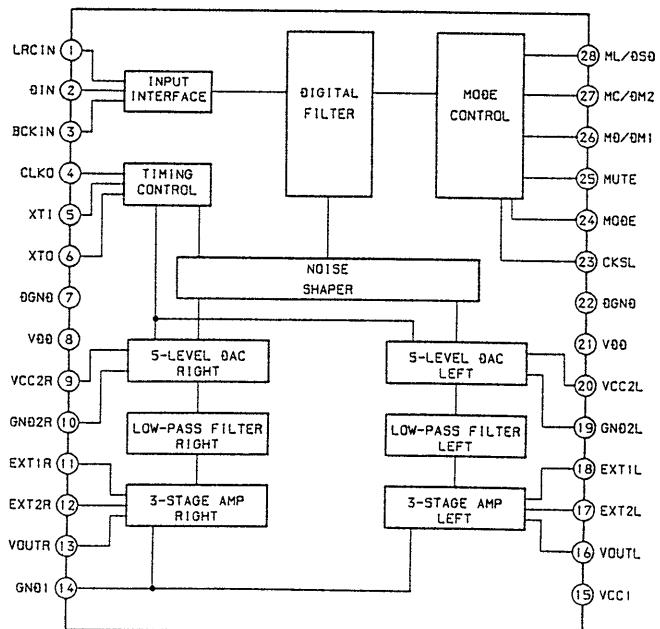


4-2. IC BLOCK DIAGRAMS

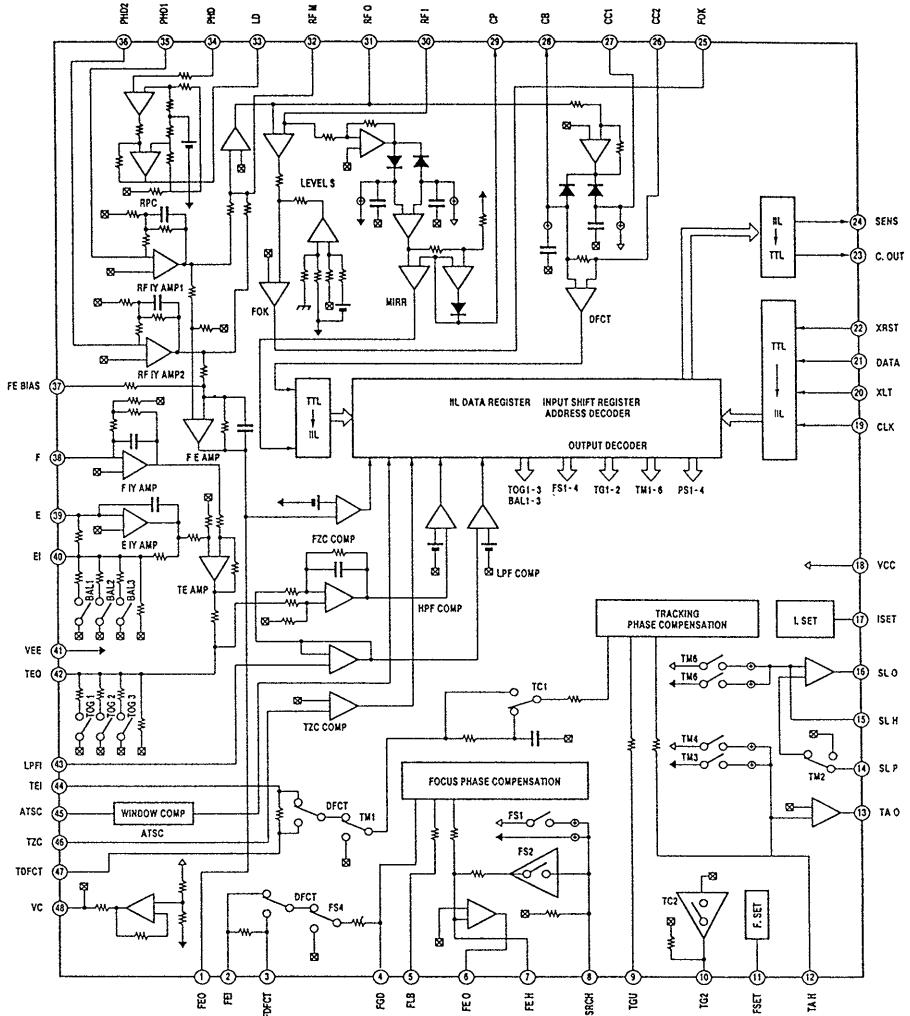
IC102 BA6397FP



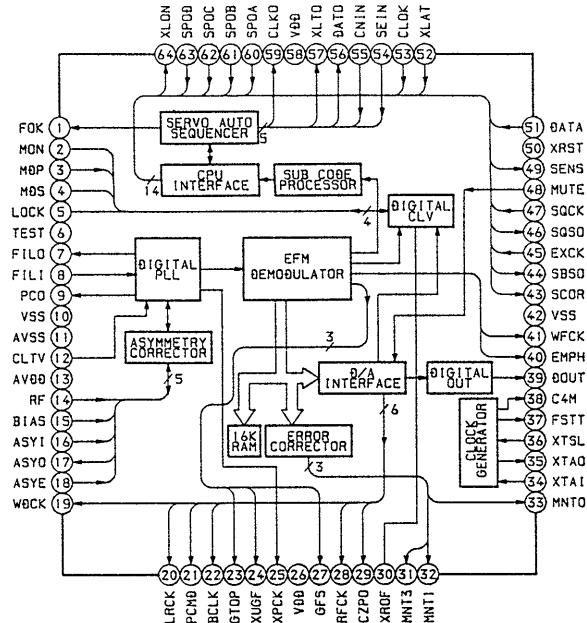
IC104 PCM1710U



IC101 CXA1782BQ



IC103 CXD2507AQ



4-3. PRINTED WIRING BOARD — BD SECTION —

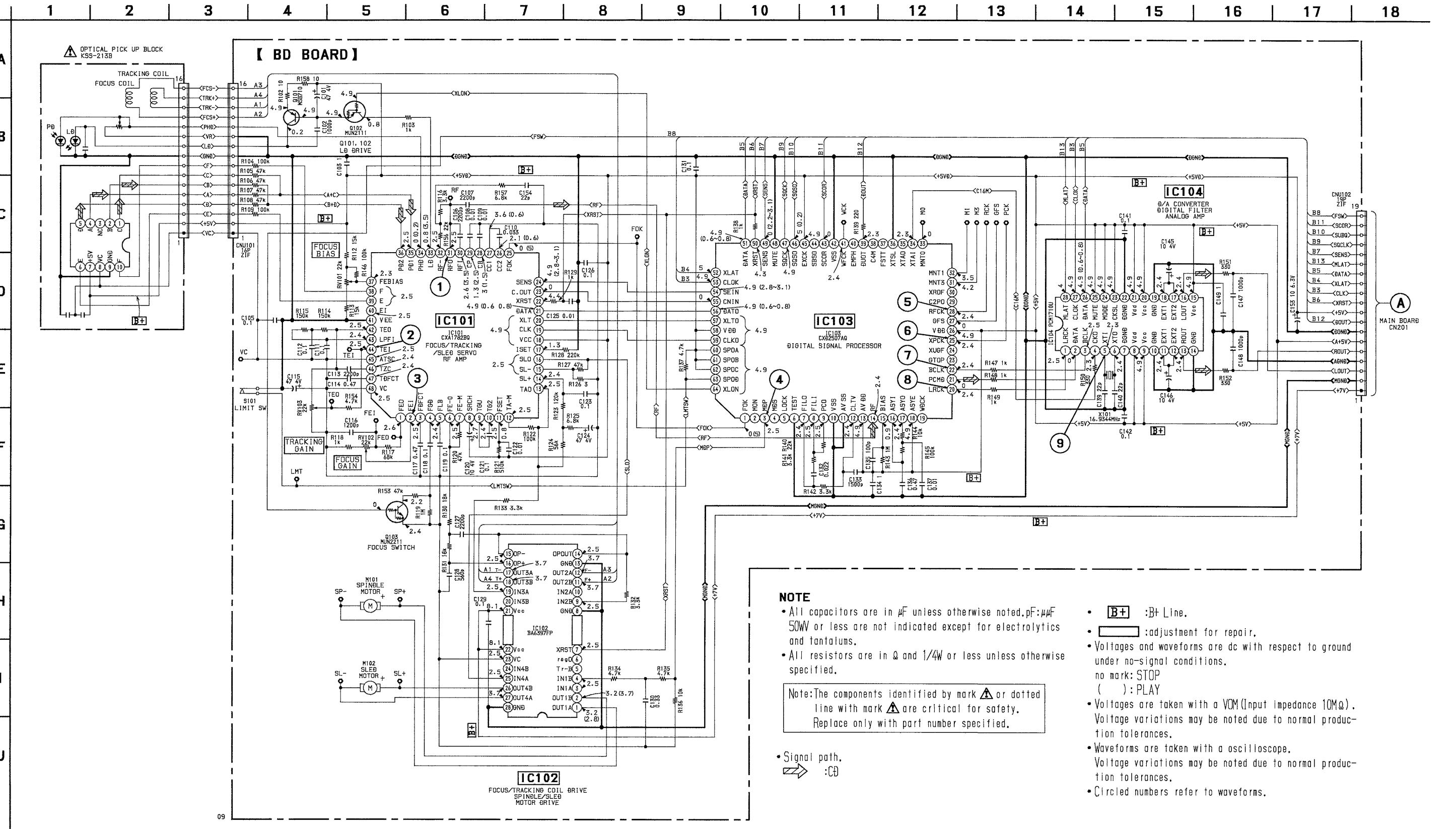
• See page 9 for Circuit Boards Location.



Note:

- : parts extracted from the component side.
- : Through hole.
- : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)

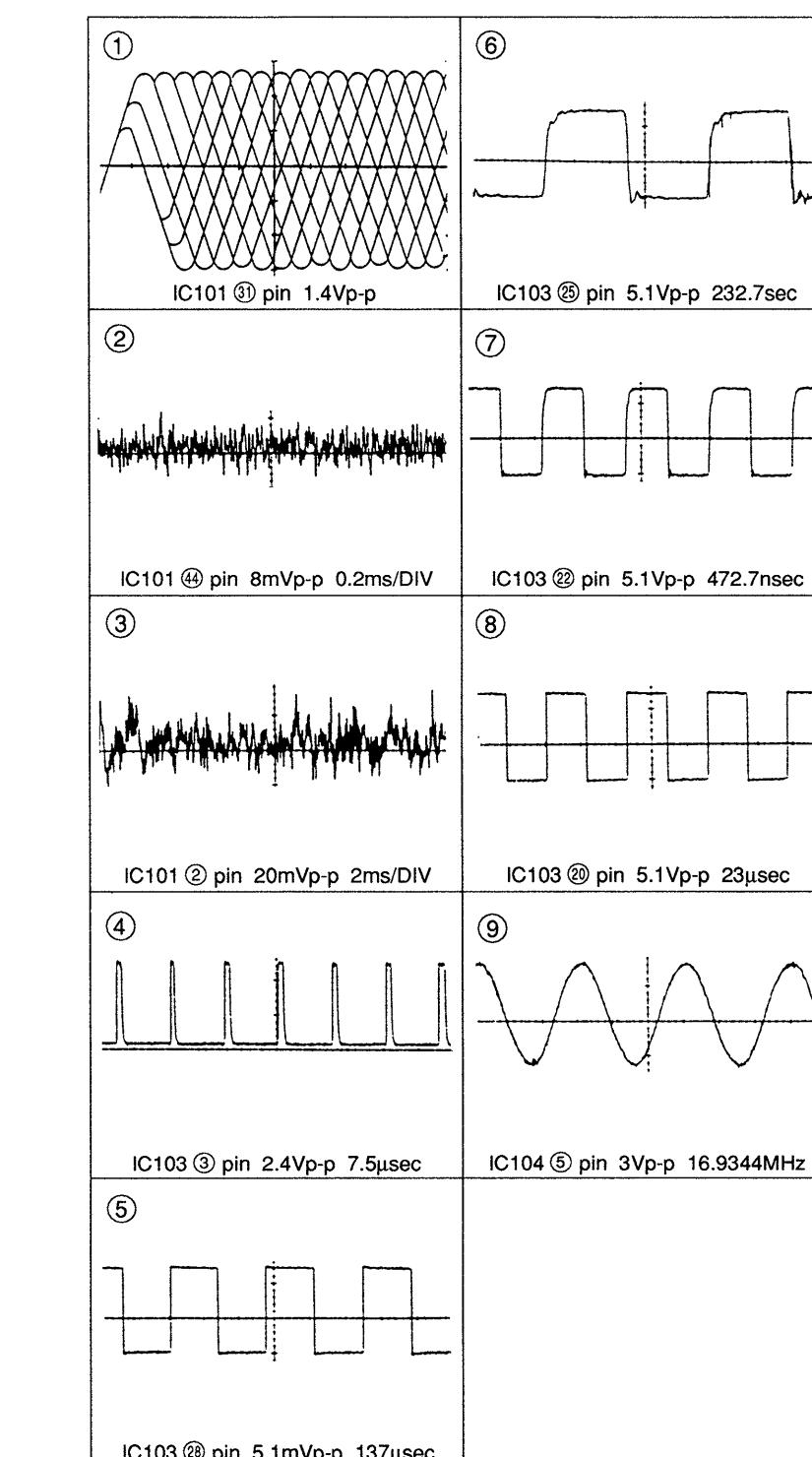
4-4. SCHEMATIC DIAGRAM — BD SECTION —
 • See page 9 for IC BLOCK DIAGRAMS.

**NOTE**

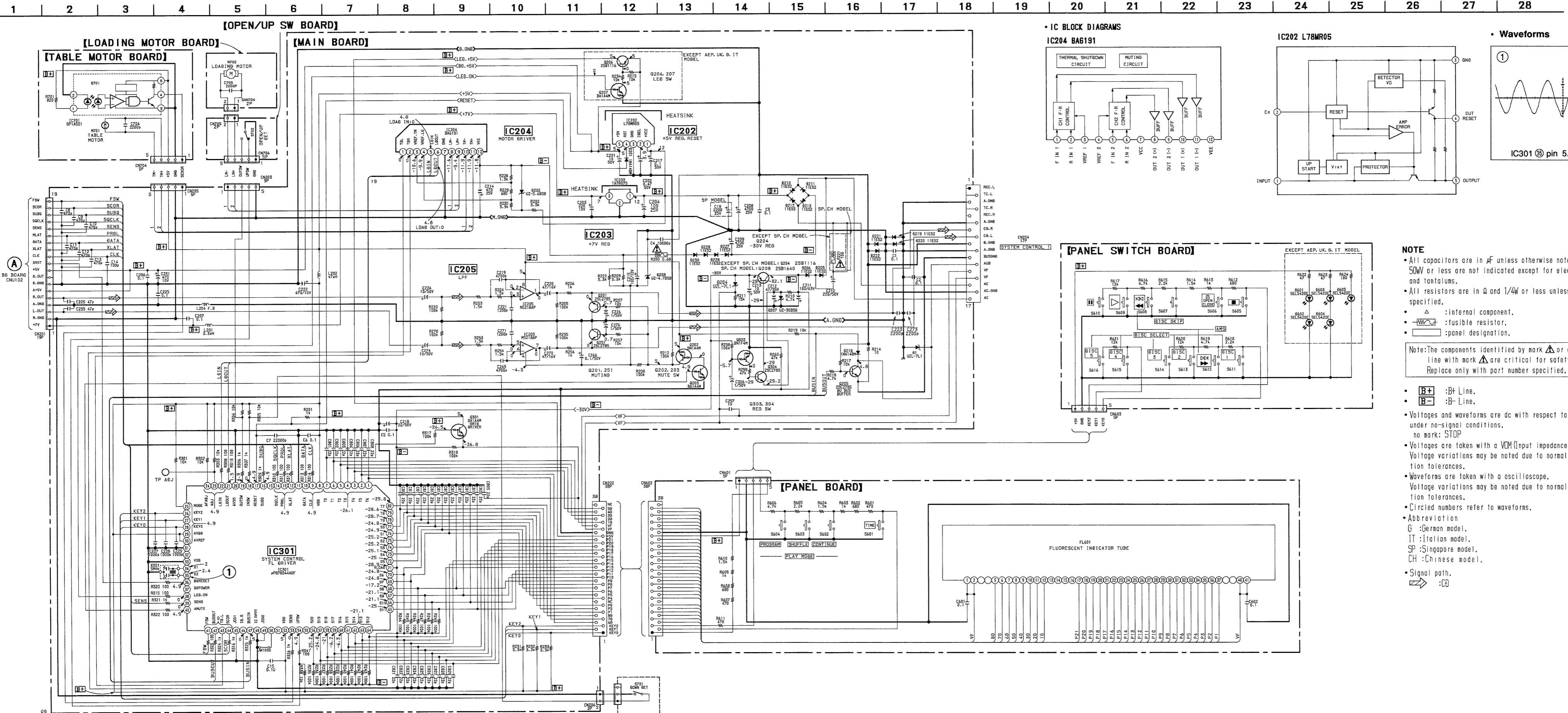
- All capacitors are in μF unless otherwise noted, μF : μF 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

• Signal path,

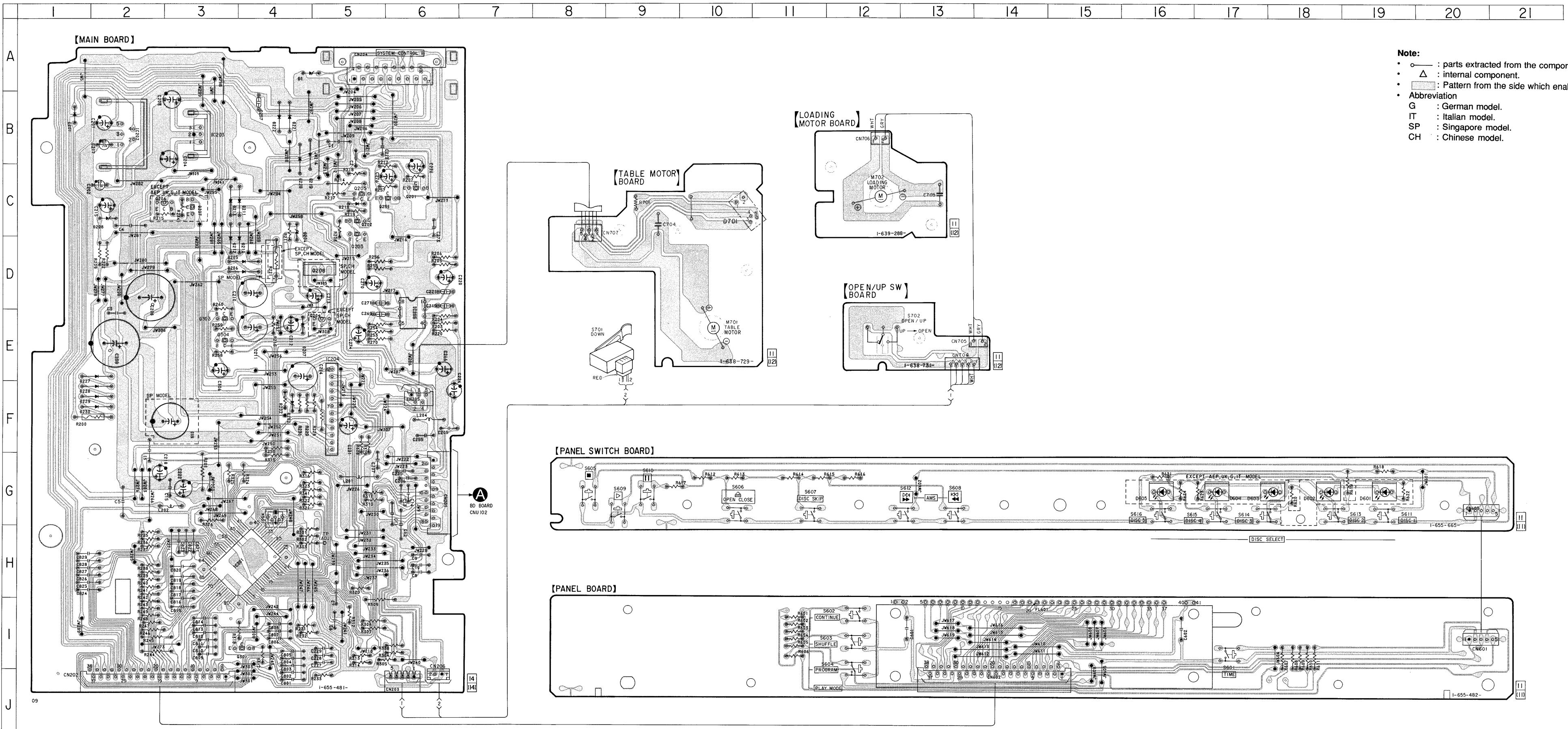
- \square : $B+$ Line.
- \square : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- no mark: STOP
() : PLAY
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

• Waveforms

4-5. SCHEMATIC DIAGRAM — MAIN SECTION —
 • See page 22 for IC Pin Function. (IC301)



4-6. PRINTED WIRING BOARD — MAIN SECTION —
 • See page 9 for Circuit Boards Location.



Note:

- : parts extracted from the component side.
- : internal component.
- : Pattern from the side which enable seeing.
- Abbreviation
 - G : German model.
 - IT : Italian model.
 - SP : Singapore model.
 - CH : Chinese model.

Semiconductor Location

Ref. No.	Location
D1	A-4
D201	B-1
D202	F-4
D204	D-4
D205	D-3
D206	D-3
D207	E-4
D208	C-2
D210	D-4
D211	C-4
D212	D-3
D213	C-3
D218	C-5
D219	C-5
D220	C-4
D221	B-4
D222	B-4
D227	F-1
D228	F-1
D229	F-1
D230	F-1
D601	G-19
D602	G-18
D603	G-18
D604	G-17
D605	G-16
D701	C-10
IC202	B-2
IC203	B-3
IC204	E-5
IC205	E-6
IC301	H-4
Q201	C-6
Q202	C-5
Q203	D-5
Q204	E-5
Q205	C-5
Q206	C-2
Q207	C-3
Q208	D-5
Q251	C-6
Q301	I-4
Q303	E-3
Q304	E-3

4-5. IC PIN FUNCTION

- IC301 SYSTEM CONTROL, FL DRIVER (μPD78044AGF)

Pin No.	Pin Name	I/O	Function
1	T6	O	FL display grid output
2	T5	O	
3	T4	O	
4	T3	O	
5	T2	O	
6	T1	O	
7	T0	O	
8	VDD	—	+5V power supply
9	CLK	O	Serial clock output to DSP (CXD-2507AQ)
10	DATA	O	Serial data output to DSP (CXD-2507AQ)
11	—	—	Fixed at GND
12	XLAT	O	Serial data latch pulse output to DSP (CXD-2507AQ)
13	PRGL	O	Serial data latch pulse output to D/F DAC (PCM-1710U)
14	SQCLK	O	Subcode Q data read clock output to DSP (CXD-2507AQ)
15	—	—	Not used (open)
16	SUBQ	I	Subcode Q data input from DSP (CXD-2507AQ)
17	RESET	I	System reset input ("L"=Active)
18	INSW	I	S701 (loading-in switch) input
19	OUTSW	I	S702 (loading-out switch) input
20	AVss	—	GND
21	LDOUT	O	Output for rotating M702 (loading motor) in the loading-out direction
22	LDIN	O	Output for rotating M702 (loading motor) in the loading-in direction
23	ADJ	I	Test mode input. "L"=Stops GFS check.
24	AFADJ	I	Test mode input. Fixed at "H" ("L":Test mode)
25	MODE	I	Not used (Fixed at "H")
26	KEY2	I	Key AD input
27	KEY1	I	
28	KEY0	I	
29	AVDD	—	+5V power supply
30	AVREF	—	
31	—	—	Fixed at GND
32	—	—	Not used (open)
33	Vss	—	GND
34	X1	I	Clock (5MHz)
35	X2	O	
36	BDRESET	O	BD reset output
37	BDPOWER	O	Not used
38	LED ON	O	LED drive signal
39	SENS	I	SENS input from DSP (CXD-2507AQ)
40	AMUTE	O	Muting ON/OFF output

Pin No.	Pin Name	I/O	Function
41	FSW	O	Focus control signal
42	BSOUT	O	Audio bus output
43	TBL	O	Table motor control
44	SCOR	I	Subcode sync S0+S1 detection input
45	JOG1	I	JOG input (Fixed "L")
46	TBR	O	Table motor control
47	BSIN	I	Audio bus input
48	IC (VPP)	—	Connect to GND
49	JOG0	I	JOG input (Fixed "L")
50	—	—	Fixed "L"
51	—	—	Not used (open)
52	VDD	—	+5V power supply
53	SENS	—	Slit sensor of disc table input
54	UPSW	—	Disc table up det
55	—	—	Not used
56	S20	O	FL display segment output
57	S19	O	
58	S18	O	
59	S17	O	
60	S16	O	
61	S15	O	
62	S14	O	
63	S13	O	
64	S12	O	
65	S11	O	
66	S10	O	
67	S9	O	
68	S8	O	
69	S7	O	
70	S6	O	
71	VLOAD	—	-30V power supply for driving FL display
72	S5	O	FL display segment output
73	S4	O	
74	S3	O	
75	S2	O	
76	S1	O	
77	S0	O	FL display grid output
78	T9	O	
79	T8	O	
80	T7	O	

SECTION 5

EXPLODED VIEWS

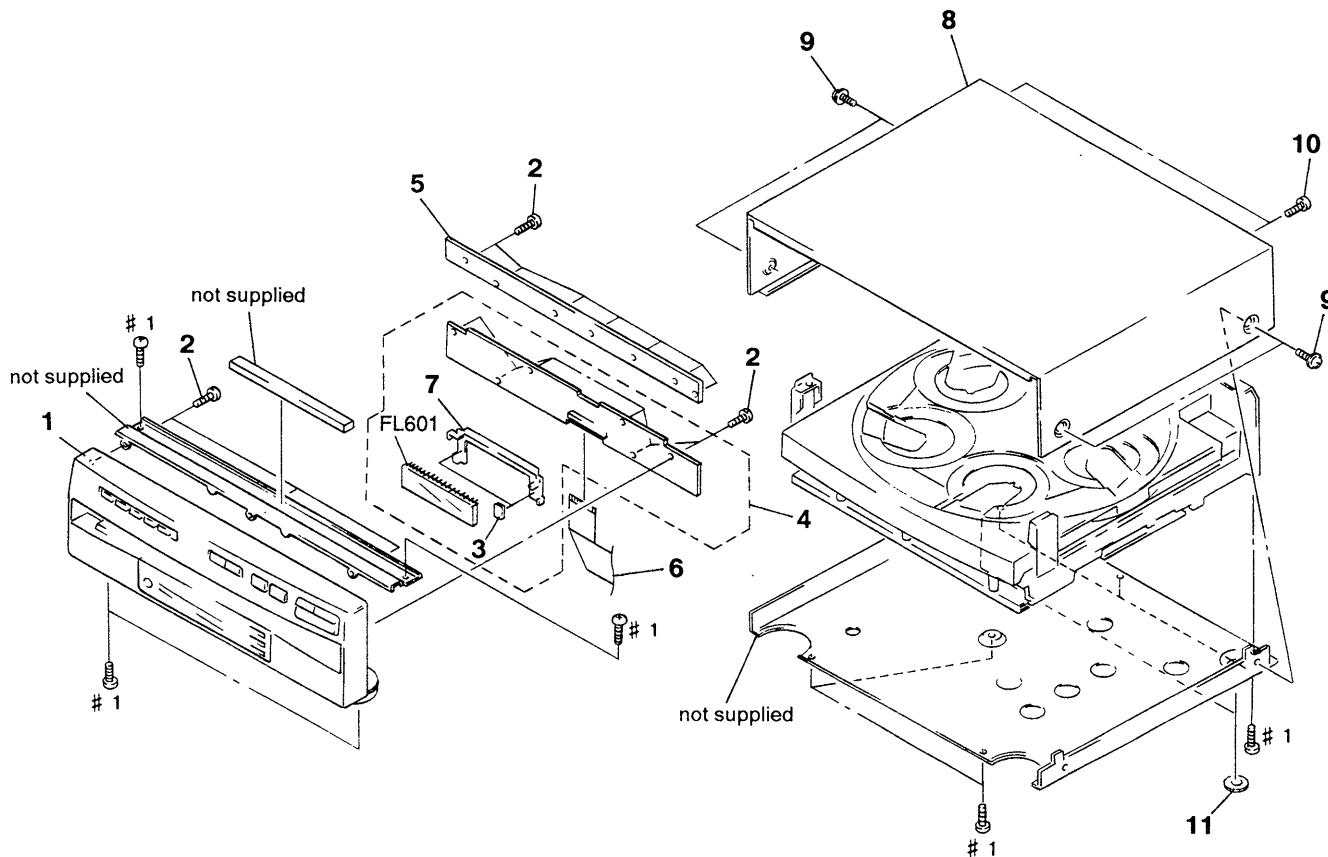
NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- Abbreviation
- EA : Saudi Arabia model
- G : German model
- IT : Italian model
- MX : Mexican model
- SP : Singapore model
- MY : Malaysia model
- AUS : Australian model
- CH : Chinese model
- AR : Argentine model

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

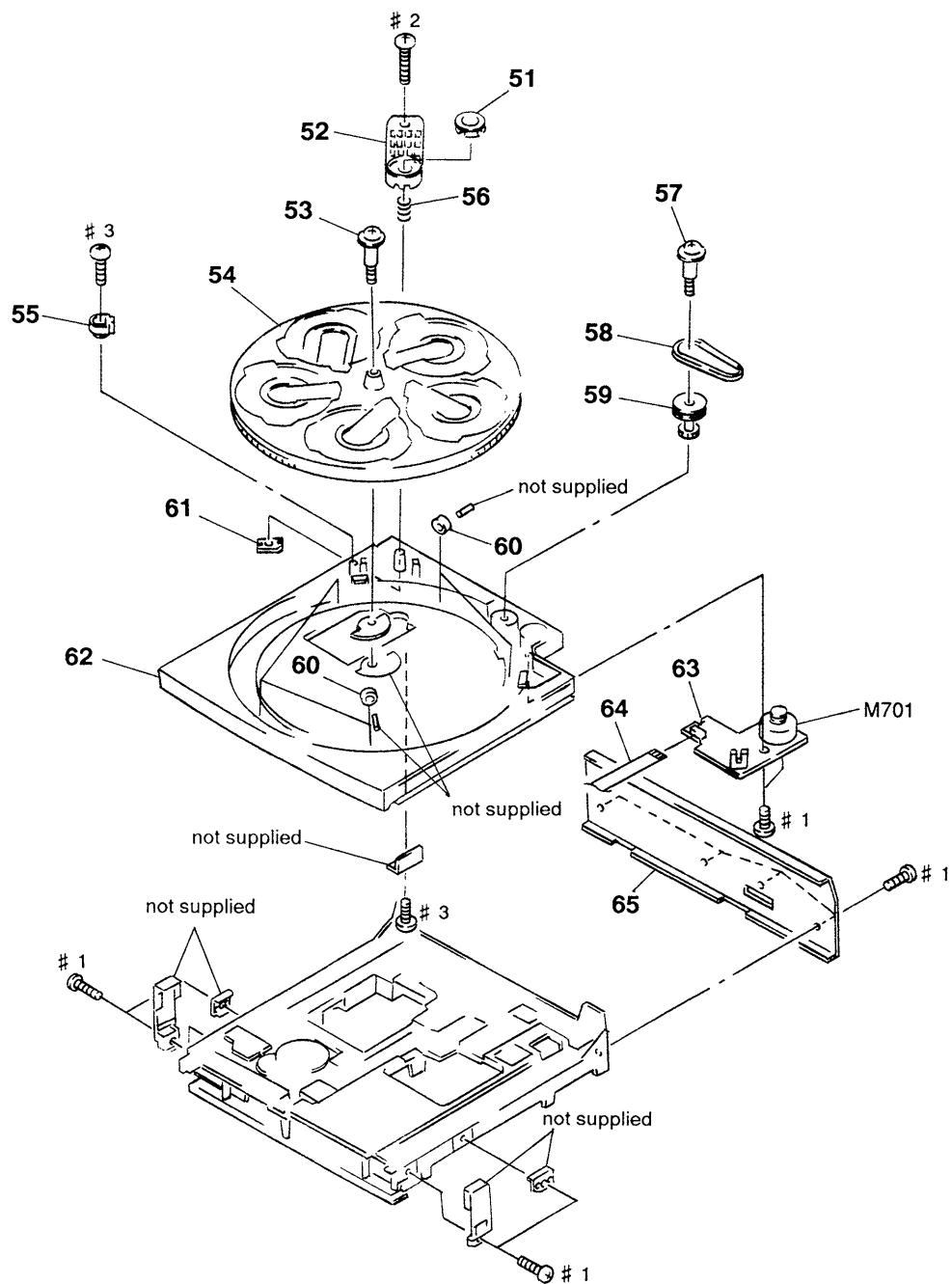
5-1. CASE AND FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	X-4945-742-1	PANEL ASSY, FRONT (AEP, UK, G, IT)	
1	X-4945-743-1	PANEL ASSY, FRONT (EXCEPT AEP, UK, G, IT)	
2	4-951-620-01	SCREW (2.6X8), +BVTP	
* 3	4-921-941-01	CUSHION(FL)	
* 4	1-655-482-11	PANEL BOARD	
* 5	1-655-665-11	PANEL SWITCH BOARD	
6	1-769-507-31	WIRE (FLAT TYPE) (37 CORE)	

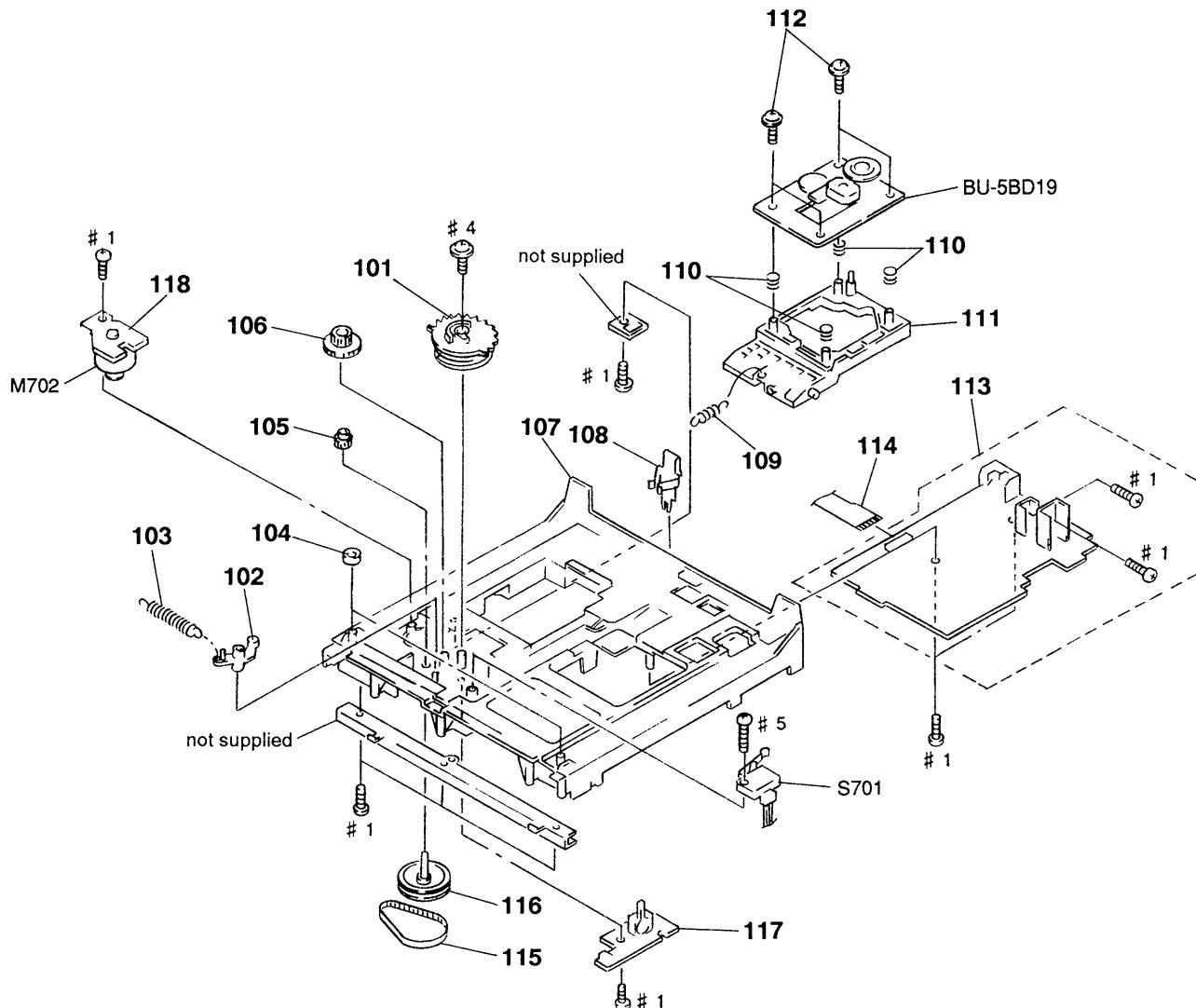
Ref. No.	Part No.	Description	Remark
* 7	4-955-792-21	HOLDER (5M), FL TUBE	
8	4-943-992-21	CASE	
9	3-704-366-01	SCREW (CASE) (M3X8)	
10	3-703-685-21	SCREW (+BV 3X8)	
11	4-924-410-01	FELT	
FL601	1-519-721-31	INDICATOR TUBE, FLUORESCENT	

5-2. DISC TABLE SECTION



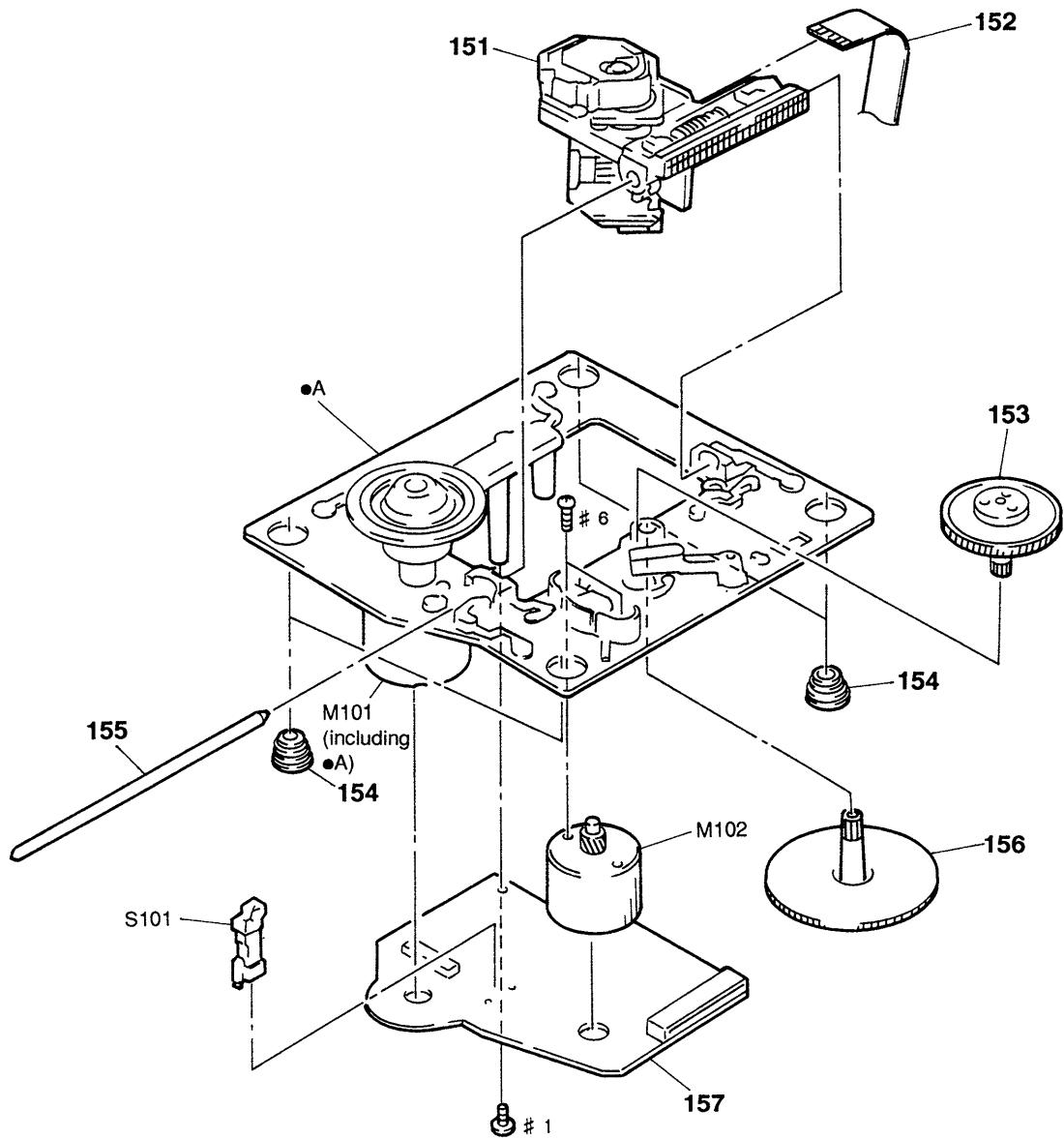
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	1-452-538-11	MAGNET		* 61	4-926-388-01	BRACKET (ADJUSTMENT)	
* 52	4-930-506-02	BRACKET (PRESS PULLEY)		62	4-955-787-81	TABLE, DISC	
53	4-926-384-01	SCREW, STEP		63	1-638-729-11	TABLE MOTOR BOARD	
* 54	4-926-383-01	TABLE (B), DISK		64	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
* 55	4-949-226-01	PLATE, LOCK		* 65	4-969-794-01	PANEL, BACK (AEP, UK, G, IT)	
56	4-926-395-01	SPRING, COMPRESSION		* 65	4-969-794-11	PANEL, BACK (E, SP, AR, MY, CH)	
57	4-923-597-01	SCREW, STEP		* 65	4-969-794-21	PANEL, BACK (EA, MX, AUS, PX)	
58	4-926-399-01	BELT		M701	A-4353-976-A	MOTOR ASSY, ROTARY (TABLE)	
59	4-934-380-01	PULLEY (R)					
60	X-4924-457-1	ROLLER ASSY					

5-3. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-934-391-01	GEAR (LOADING A)		112	4-933-134-01	SCREW (+PTPWH M2.6X6)	
102	4-917-519-01	LEVER, SET		* 113	A-4673-489-A	MAIN BOARD, COMPLETE (AEP, UK, G, IT)	
103	4-924-412-01	SPRING (B), TENSION		* 113	A-4673-491-A	MAIN BOARD, COMPLETE (E, EA, MX, MY, AUS, PX, AR)	
* 104	4-951-619-01	CUSHION (A)		* 113	A-4673-662-A	MAIN BOARD, COMPLETE (SP, CH)	
105	4-934-375-01	GEAR (LOADING B)		114	1-654-751-11	FLEXIBLE BOARD	
106	4-934-381-01	GEAR (LOADING C)		115	4-944-490-01	BELT (TIMING)	
* 107	4-943-997-31	CHASSIS		116	X-4941-529-1	PULLEY ASSY	
* 108	4-943-996-06	SPRING, LEAF		117	1-638-731-11	OPEN/UP SW BOARD	
109	4-937-911-01	SPRING, TENSION		* 118	1-639-288-11	LOADING MOTOR BOARD	
110	4-958-593-01	SPRING (BU), COMPRESSION		M702	A-4353-974-A	MOTOR ASSY, LOADING	
* 111	4-934-373-01	BRACKET (BU)					

5-4. BASE UNIT SECTION (BU-5BD19)



The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	8-848-387-01	OPTICAL PICK UP BLOCK KSS-213BA/S-N		156	4-917-564-01	GEAR (P), FLATNESS	
152	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)		* 157	A-4673-402-A	BD BOARD, COMPLETE	
153	4-917-567-01	GEAR (M)		M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE)	
154	4-951-940-01	INSULATOR (BU)		M102	X-4917-504-1	MOTOR ASSY (SLED)	
155	4-917-565-01	SHAFT, SLED		S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

BD

SECTION 6

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- **RESISTORS**
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- **SEMICONDUCTORS**
In each case, u, μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...
- **CAPACITORS**
uF : μ F
- **COILS**
uH : μ H
- **Abbreviation**
EA : Saudi Arabia model
G : German model
IT : Italian model
MX : Mexican model
SP : Singapore model
MY : Malaysia model
AUS : Australian model
CH : Chinese model
AR : Argentine model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4673-402-A	BD BOARD, COMPLETE		C142	1-163-038-91	CERAMIC CHIP	0.1uF
		*****		C145	1-135-201-11	TANTALUM CHIP	10uF 20%
		< CAPACITOR >		C146	1-135-201-11	TANTALUM CHIP	10uF 20%
C101	1-126-607-11	ELECT CHIP	47uF 20% 4V	C147	1-163-275-11	CERAMIC CHIP	0.001uF 5%
C102	1-163-275-11	CERAMIC CHIP	0.001uF 5% 50V	C148	1-163-275-11	CERAMIC CHIP	0.001uF 5%
C103	1-164-346-11	CERAMIC CHIP	1uF 16V	C149	1-164-346-11	CERAMIC CHIP	1uF 16V
C105	1-163-038-91	CERAMIC CHIP	0.1uF 25V	C153	1-135-259-11	TANTAL. CHIP	10uF 20%
C106	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	C154	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C107	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V				< CONNECTOR >
C108	1-164-232-11	CERAMIC CHIP	0.01uF 50V	CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P	
C109	1-164-232-11	CERAMIC CHIP	0.01uF 50V	CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P	
C110	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V				< IC >
C111	1-163-038-91	CERAMIC CHIP	0.1uF 25V	IC101	8-752-069-56	IC CXA1782BQ	
C112	1-163-038-91	CERAMIC CHIP	0.1uF 25V	IC102	8-759-291-06	IC BA6397FP	
C113	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	IC103	8-752-372-94	IC CXD2507AQ	
C114	1-164-005-11	CERAMIC CHIP	0.47uF 25V	IC104	8-759-185-29	IC PCM1710U-B	
C115	1-126-607-11	ELECT CHIP	47uF 20% 4V				< TRANSISTOR >
C116	1-163-143-00	CERAMIC CHIP	0.0012uF 5% 50V	Q101	8-729-010-08	TRANSISTOR MSB710-R	
C117	1-164-005-11	CERAMIC CHIP	0.47uF 25V	Q102	8-729-424-08	TRANSISTOR UN2111	
C118	1-163-038-91	CERAMIC CHIP	0.1uF 25V	Q103	8-729-421-22	TRANSISTOR UN2211	
C119	1-163-038-91	CERAMIC CHIP	0.1uF 25V				< RESISTOR >
C120	1-135-201-11	TANTALUM CHIP	10uF 20% 4V	R102	1-216-001-00	METAL CHIP 10 5% 1/10W	
C121	1-163-038-91	CERAMIC CHIP	0.1uF 25V	R103	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
C122	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R104	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
C123	1-163-038-91	CERAMIC CHIP	0.1uF 25V	R105	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C124	1-126-607-11	ELECT CHIP	47uF 20% 4V	R106	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C125	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R107	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C126	1-163-038-91	CERAMIC CHIP	0.1uF 25V	R108	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C127	1-164-695-11	CERAMIC CHIP	0.0022uF 5% 50V	R109	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
C128	1-163-135-00	CERAMIC CHIP	560PF 5% 50V	R110	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C129	1-163-038-91	CERAMIC CHIP	0.1uF 25V	R111	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C130	1-164-336-11	CERAMIC CHIP	0.33uF 25V	R112	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C131	1-163-038-91	CERAMIC CHIP	0.1uF 25V	R113	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C132	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R114	1-216-101-00	METAL CHIP 150K 5% 1/10W	
C133	1-163-145-00	CERAMIC CHIP	0.0015uF 5% 50V	R115	1-216-101-00	METAL CHIP 150K 5% 1/10W	
C134	1-164-346-11	CERAMIC CHIP	1uF 16V	R116	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C135	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	R117	1-216-093-00	METAL CHIP 68K 5% 1/10W	
C136	1-164-005-11	CERAMIC CHIP	0.47uF 25V	R118	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
C137	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R119	1-216-121-00	METAL CHIP 1M 5% 1/10W	
C139	1-163-235-11	CERAMIC CHIP	22PF 5% 50V	R120	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C140	1-163-235-11	CERAMIC CHIP	22PF 5% 50V				
C141	1-163-038-91	CERAMIC CHIP	0.1uF 25V				

BD	TABLE MOTOR	LOADING MOTOR	OPEN/UP SW	MAIN
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R121	1-216-114-00	METAL GLAZE	510K 5% 1/10W		1-638-729-11	TABLE MOTOR BOARD	*****
R122	1-216-097-91	METAL GLAZE	100K 5% 1/10W				*****
R123	1-216-099-00	METAL CHIP	120K 5% 1/10W	*	1-639-288-11	LOADING MOTOR BOARD	*****
R124	1-216-091-00	METAL CHIP	56K 5% 1/10W				*****
R125	1-216-069-00	METAL CHIP	6.8K 5% 1/10W		1-638-731-11	OPEN/UP SW BOARD	*****
R126	1-216-063-00	METAL CHIP	3.9K 5% 1/10W				*****
R127	1-216-089-00	METAL CHIP	47K 5% 1/10W				*****
R128	1-216-105-91	METAL GLAZE	220K 5% 1/10W				< CAPACITOR >
R129	1-216-049-91	METAL GLAZE	1K 5% 1/10W		C704	1-162-302-11 CERAMIC	0.0022uF 30% 16V
R130	1-216-079-00	METAL CHIP	18K 5% 1/10W		C705	1-162-302-11 CERAMIC	0.0022uF 30% 16V
R131	1-216-079-00	METAL CHIP	18K 5% 1/10W				< CONNECTOR >
R132	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
R133	1-216-061-00	METAL CHIP	3.3K 5% 1/10W		* CN705	1-566-214-11 PIN, CONNECTOR (PC BOARD) 2P	
R134	1-216-065-00	METAL CHIP	4.7K 5% 1/10W		* CN707	1-573-044-11 SOCKET, CONNECTOR 5P	
R135	1-216-065-00	METAL CHIP	4.7K 5% 1/10W				< DIODE >
R136	1-216-073-00	METAL CHIP	10K 5% 1/10W		D701	8-719-970-19 DIODE	GP-1A521
R137	1-216-065-00	METAL CHIP	4.7K 5% 1/10W				
R138	1-216-049-91	METAL GLAZE	1K 5% 1/10W				< RESISTOR >
R139	1-216-033-00	METAL CHIP	220 5% 1/10W		R701	1-249-416-11 CARBON	820 5% 1/4W F
R140	1-216-081-00	METAL CHIP	22K 5% 1/10W				
R141	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				< SWITCH >
R142	1-216-061-00	METAL CHIP	3.3K 5% 1/10W		S702	1-571-300-21 SWITCH, ROTARY (OPEN/UP DET)	
R143	1-216-121-00	METAL CHIP	1M 5% 1/10W				*****
R144	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R145	1-216-097-91	METAL GLAZE	100K 5% 1/10W		* A-4673-489-A MAIN BOARD, COMPLETE (AEP, UK, G, IT)	*****	
R146	1-216-097-91	METAL GLAZE	100K 5% 1/10W				
R147	1-216-049-91	METAL GLAZE	1K 5% 1/10W				*****
R148	1-216-049-91	METAL GLAZE	1K 5% 1/10W				
R149	1-216-049-91	METAL GLAZE	1K 5% 1/10W		* A-4673-491-A MAIN BOARD, COMPLETE		
R150	1-216-037-00	METAL CHIP	330 5% 1/10W				(E, EA, MX, PX, AUS, AR, MY)
R151	1-216-037-00	METAL CHIP	330 5% 1/10W				*****
R152	1-216-037-00	METAL CHIP	330 5% 1/10W				
R153	1-216-089-00	METAL CHIP	47K 5% 1/10W				
R154	1-216-065-00	METAL CHIP	4.7K 5% 1/10W		* A-4673-662-A MAIN BOARD, COMPLETE (SP, CH)	*****	
R155	1-216-081-00	METAL CHIP	22K 5% 1/10W				
R156	1-216-069-00	METAL CHIP	6.8K 5% 1/10W				
R157	1-216-001-00	METAL CHIP	10 5% 1/10W		7-685-646-79 SCREW +BVTP	3X8 TYPE2 N-S	
			< VARIABLE RESISTOR >				
RV101	1-241-396-11	RES, ADJ, METAL GLAZE	22K		C1	1-164-159-11 CERAMIC	0.1uF 50V
RV102	1-241-396-11	RES, ADJ, METAL GLAZE	22K		C2	1-164-159-11 CERAMIC	0.1uF 50V
RV103	1-241-396-11	RES, ADJ, METAL GLAZE	22K		C3	1-164-159-11 CERAMIC	0.1uF 50V
					C4	1-162-306-11 CERAMIC	0.01uF 30% 16V
			< SWITCH >		C5	1-164-159-11 CERAMIC	0.1uF 50V
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			C6	1-164-159-11 CERAMIC	0.1uF 50V
			< VIBRATOR >		C7	1-161-494-00 CERAMIC	0.022uF 25V
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.934MHz)			C8	1-162-290-31 CERAMIC	470PF 10% 50V
					C9	1-162-290-31 CERAMIC	470PF 10% 50V
					C10	1-162-290-31 CERAMIC	470PF 10% 50V
					C11	1-162-290-31 CERAMIC	470PF 10% 50V

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		<u>Remark</u>		
C12	1-162-290-31	CERAMIC	470PF	10%	50V	C807	1-162-207-31	CERAMIC	22PF	5%	50V
C13	1-162-290-31	CERAMIC	470PF	10%	50V	C808	1-162-207-31	CERAMIC	22PF	5%	50V
C14	1-162-282-31	CERAMIC	100PF	10%	50V	C809	1-162-207-31	CERAMIC	22PF	5%	50V
C15	1-164-159-11	CERAMIC	0.1uF		50V	C810	1-162-207-31	CERAMIC	22PF	5%	50V
C19	1-126-943-11	ELECT	2200uF	20%	25V (SP)	C811	1-162-207-31	CERAMIC	22PF	5%	50V
C201	1-124-907-11	ELECT	10uF	20%	50V	C812	1-162-207-31	CERAMIC	22PF	5%	50V
C202	1-124-465-00	ELECT	0.47uF	20%	50V	C813	1-162-207-31	CERAMIC	22PF	5%	50V
C203	1-126-923-11	ELECT	220uF	20%	10V	C814	1-162-207-31	CERAMIC	22PF	5%	50V
C204	1-124-478-11	ELECT	100uF	20%	25V	C815	1-162-207-31	CERAMIC	22PF	5%	50V
C205	1-162-215-31	CERAMIC	47PF	5%	50V	C816	1-162-207-31	CERAMIC	22PF	5%	50V
C206	1-164-159-11	CERAMIC	0.1uF		50V	C817	1-162-207-31	CERAMIC	22PF	5%	50V
C207	1-164-159-11	CERAMIC	0.1uF		50V	C818	1-162-207-31	CERAMIC	22PF	5%	50V
C208	1-128-548-11	ELECT	4700uF	20%	25V	C819	1-162-207-31	CERAMIC	22PF	5%	50V
C209	1-128-548-11	ELECT	4700uF	20%	25V	C820	1-162-207-31	CERAMIC	22PF	5%	50V
C210	1-126-969-11	ELECT	220uF	20%	50V	C821	1-162-207-31	CERAMIC	22PF	5%	50V
C211	1-128-576-11	ELECT	100uF	20%	63V	C822	1-162-207-31	CERAMIC	22PF	5%	50V
C212	1-126-947-11	ELECT	47uF	20%	35V	C823	1-162-207-31	CERAMIC	22PF	5%	50V
C213	1-124-907-11	ELECT	10uF	20%	50V	C824	1-162-207-31	CERAMIC	22PF	5%	50V
C214	1-126-941-11	ELECT	470uF	20%	25V	C825	1-162-207-31	CERAMIC	22PF	5%	50V
C215	1-124-443-00	ELECT	100uF	20%	10V	C826	1-162-207-31	CERAMIC	22PF	5%	50V
C217	1-124-463-00	ELECT	0.1uF	20%	50V	C827	1-162-207-31	CERAMIC	22PF	5%	50V
C218	1-124-916-11	ELECT	22uF	20%	63V	C828	1-162-207-31	CERAMIC	22PF	5%	50V
C219	1-130-479-00	MYLAR	0.0047uF	5%	50V	C829	1-162-207-31	CERAMIC	22PF	5%	50V
C220	1-104-664-11	ELECT	47uF	20%	16V						
											< CONNECTOR >
C221	1-130-472-00	MYLAR	0.0012uF	5%	50V	* CN201	1-568-862-11	SOCKET, CONNECTOR 19P			
C222	1-126-925-11	ELECT	470uF	20%	10V	* CN202	1-691-902-21	CONNECTOR, FFC/FPC 37P			
C223	1-162-302-11	CERAMIC	0.0022uF	30%	16V	* CN203	1-568-943-11	PIN, CONNECTOR 5P			
C224	1-124-907-11	ELECT	10uF	20%	50V	CN204	1-764-017-11	HOUSING, CONNECTOR(PC BOARD)17P			
C225	1-164-159-11	CERAMIC	0.1uF		50V	* CN205	1-568-824-11	SOCKET, CONNECTOR 5P			
C226	1-124-903-11	ELECT	1uF	20%	50V						
C227	1-162-294-31	CERAMIC	0.001uF	10%	50V						< DIODE >
C228	1-162-294-31	CERAMIC	0.001uF	10%	50V	D1	8-719-000-75	DIODE	UZL-7L1		
C229	1-162-294-31	CERAMIC	0.001uF	10%	50V	D201	8-719-987-63	DIODE	IN4148M		
C231	1-126-925-11	ELECT	470uF	20%	10V	D202	8-719-010-42	DIODE	UZ-5.6BSB		
C255	1-162-215-31	CERAMIC	47PF	5%	50V	D204	8-719-000-75	DIODE	UZL-7L1		
C257	1-136-177-00	FILM	1uF	5%	50V	D205	8-719-024-99	DIODE	11ES2-NTA2B		
C266	1-124-463-00	ELECT	0.1uF	20%	50V	D206	8-719-024-99	DIODE	11ES2-NTA2B		
C269	1-130-479-00	MYLAR	0.0047uF	5%	50V	D207	8-719-013-67	DIODE	UZ-30BSD		
C270	1-104-664-11	ELECT	47uF	20%	16V	D208	8-719-010-33	DIODE	UZ-4.7BSB		
C271	1-130-472-00	MYLAR	0.0012uF	5%	50V	D210	8-719-024-99	DIODE	11ES2-NTA2B		
C273	1-162-302-11	CERAMIC	0.0022uF	30%	16V	D211	8-719-024-99	DIODE	11ES2-NTA2B		
C274	1-124-907-11	ELECT	10uF	20%	50V	D212	8-719-024-99	DIODE	11ES2-NTA2B		
C276	1-124-903-11	ELECT	1uF	20%	50V	D213	8-719-024-99	DIODE	11ES2-NTA2B		
C306	1-124-903-11	ELECT	1uF	20%	50V	D218	8-719-987-63	DIODE	IN4148M		
C801	1-162-207-31	CERAMIC	22PF	5%	50V	D219	8-719-024-99	DIODE	11ES2-NTA2B		
C802	1-162-207-31	CERAMIC	22PF	5%	50V	D220	8-719-024-99	DIODE	11ES2-NTA2B		
C803	1-162-207-31	CERAMIC	22PF	5%	50V	D221	8-719-024-99	DIODE	11ES2-NTA2B		
C804	1-162-207-31	CERAMIC	22PF	5%	50V	D222	8-719-024-99	DIODE	11ES2-NTA2B		
C805	1-162-207-31	CERAMIC	22PF	5%	50V	D227	8-719-024-99	DIODE	11ES2-NTA2B		
C806	1-162-207-31	CERAMIC	22PF	5%	50V	D228	8-719-024-99	DIODE	11ES2-NTA2B		

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
D229	8-719-024-99	DIODE	11ES2-NTA2B			R219	1-249-429-11	CARBON	10K	5%	1/4W
D230	8-719-024-99	DIODE	11ES2-NTA2B			R220	1-249-441-11	CARBON	100K	5%	1/4W
< IC >											
IC202	8-759-820-84	IC	L78MR05			△R221	1-212-881-11	FUSIBLE	100	5%	1/4W F (EXCEPT SP, CH)
IC203	8-759-071-48	IC	TA7807S			R222	1-249-423-11	CARBON	3.3K	5%	1/4W F
IC204	8-759-172-31	IC	BA6191			R228	1-247-834-11	CARBON	1.3K	5%	1/4W
IC205	8-759-634-51	IC	M5218AP			R229	1-249-415-11	CARBON	680	5%	1/4W F
IC301	8-759-332-67	IC	uPD78044AGF-101-3B9			R230	1-249-424-11	CARBON	3.9K	5%	1/4W F
< COIL >											
L201	1-410-322-11	INDUCTOR	3.3uH			R231	1-249-423-11	CARBON	3.3K	5%	1/4W F
L202	1-410-517-11	INDUCTOR	47uH			R232	1-249-423-11	CARBON	3.3K	5%	1/4W F
L204	1-412-473-21	INDUCTOR	0uH			R233	1-249-423-11	CARBON	3.3K	5%	1/4W F
< TRANSISTOR >											
Q201	8-729-119-78	TRANSISTOR	2SC403SP-51			R234	1-249-429-11	CARBON	10K	5%	1/4W
Q202	8-729-422-57	TRANSISTOR	UN4111			R235	1-249-441-11	CARBON	100K	5%	1/4W
Q203	8-729-900-80	TRANSISTOR	DTC114ES			R236	1-249-441-11	CARBON	100K	5%	1/4W
Q204	8-729-030-19	TRANSISTOR	2SB1640 (SP, CH)			R237	1-249-441-11	CARBON	100K	5%	1/4W
Q205	8-729-119-78	TRANSISTOR	2SC403SP-51 (EXCEPT SP, CH)			R238	1-249-441-11	CARBON	100K	5%	1/4W
Q206	8-729-140-04	TRANSISTOR	2SB1116A-L (EXCEPT AEP, UK, G, IT)			R239	1-249-441-11	CARBON	100K	5%	1/4W
Q207	8-729-900-80	TRANSISTOR	DTC114ES (EXCEPT AEP, UK, G, IT)			R240	1-249-441-11	CARBON	100K	5%	1/4W
Q208	8-729-140-04	TRANSISTOR	2SB1116A-L (EXCEPT SP, CH)			R241	1-249-441-11	CARBON	100K	5%	1/4W
Q251	8-729-119-78	TRANSISTOR	2SC403SP-51			R242	1-249-441-11	CARBON	100K	5%	1/4W
Q301	8-729-900-80	TRANSISTOR	DTC114ES			R243	1-249-441-11	CARBON	100K	5%	1/4W
Q303	8-729-900-63	TRANSISTOR	DTA124ES			R244	1-249-441-11	CARBON	100K	5%	1/4W
Q304	8-729-119-78	TRANSISTOR	2SC403SP-51			R245	1-249-441-11	CARBON	100K	5%	1/4W
< RESISTOR >											
△R200	1-219-139-11	FUSIBLE	0.68	10%	1/4W	R246	1-249-441-11	CARBON	100K	5%	1/4W
R201	1-249-417-11	CARBON	1K	5%	1/4W F	R247	1-249-441-11	CARBON	100K	5%	1/4W
R202	1-249-423-11	CARBON	3.3K	5%	1/4W F	R248	1-249-441-11	CARBON	100K	5%	1/4W
R203	1-249-419-11	CARBON	1.5K	5%	1/4W F	R249	1-249-441-11	CARBON	100K	5%	1/4W
R204	1-249-419-11	CARBON	1.5K	5%	1/4W F	R250	1-249-417-11	CARBON	1K	5%	1/4W F
R205	1-249-441-11	CARBON	100K	5%	1/4W	R253	1-249-419-11	CARBON	1.5K	5%	1/4W F
R206	1-249-417-11	CARBON	1K	5%	1/4W F	R254	1-249-419-11	CARBON	1.5K	5%	1/4W F
R207	1-249-429-11	CARBON	10K	5%	1/4W	R255	1-249-441-11	CARBON	100K	5%	1/4W
R208	1-249-441-11	CARBON	100K	5%	1/4W	R256	1-249-417-11	CARBON	1K	5%	1/4W F
R209	1-249-423-11	CARBON	3.3K	5%	1/4W F	R257	1-249-429-11	CARBON	10K	5%	1/4W
R210	1-249-425-11	CARBON	4.7K	5%	1/4W F	R258	1-249-441-11	CARBON	100K	5%	1/4W
R211	1-249-431-11	CARBON	15K	5%	1/4W	R259	1-249-437-11	CARBON	47K	5%	1/4W
R212	1-249-441-11	CARBON	100K	5%	1/4W	R260	1-249-437-11	CARBON	47K	5%	1/4W
R214	1-249-393-11	CARBON	10	5%	1/4W F	R270	1-249-441-11	CARBON	100K	5%	1/4W
R215	1-249-429-11	CARBON	10K	5%	1/4W F	R301	1-249-429-11	CARBON	10K	5%	1/4W
			(EXCEPT AEP, UK, G, IT)			R302	1-249-429-11	CARBON	10K	5%	1/4W
R217	1-249-429-11	CARBON	10K	5%	1/4W	R303	1-249-429-11	CARBON	10K	5%	1/4W
R218	1-249-425-11	CARBON	4.7K	5%	1/4W F	R304	1-249-429-11	CARBON	10K	5%	1/4W
			(EXCEPT AEP, UK, G, IT)			R305	1-249-429-11	CARBON	10K	5%	1/4W
			(EXCEPT AEP, UK, G, IT)			R306	1-249-417-11	CARBON	1K	5%	1/4W F
			(EXCEPT AEP, UK, G, IT)			R307	1-249-417-11	CARBON	1K	5%	1/4W F
			(EXCEPT AEP, UK, G, IT)			R308	1-247-807-31	CARBON	100	5%	1/4W
			(EXCEPT AEP, UK, G, IT)			R309	1-249-417-11	CARBON	1K	5%	1/4W F
			(EXCEPT AEP, UK, G, IT)			R310	1-247-807-31	CARBON	100	5%	1/4W
			(EXCEPT AEP, UK, G, IT)			R311	1-247-807-31	CARBON	100	5%	1/4W
			(EXCEPT AEP, UK, G, IT)			R312	1-247-807-31	CARBON	100	5%	1/4W

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

MAIN PANEL PANEL SWITCH

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark	
R313	1-247-807-31	CARBON	100	5%	1/4W		R604	1-249-419-11	CARBON	1.5K	5%	1/4W	F	
R314	1-247-807-31	CARBON	100	5%	1/4W		R605	1-249-421-11	CARBON	2.2K	5%	1/4W	F	
R315	1-247-807-31	CARBON	100	5%	1/4W		R606	1-249-425-11	CARBON	4.7K	5%	1/4W	F	
R316	1-249-417-11	CARBON	1K	5%	1/4W	F	R607	1-249-413-11	CARBON	470	5%	1/4W	F	
R317	1-249-441-11	CARBON	100K	5%	1/4W		R608	1-249-415-11	CARBON	680	5%	1/4W	F	
R318	1-249-441-11	CARBON	100K	5%	1/4W		R609	1-249-417-11	CARBON	1K	5%	1/4W	F	
R319	1-247-807-31	CARBON	100	5%	1/4W		R610	1-249-419-11	CARBON	1.5K	5%	1/4W	F	
R320	1-247-807-31	CARBON	100	5%	1/4W		R611	1-249-413-11	CARBON	470	5%	1/4W	F	
R321	1-249-417-11	CARBON	1K	5%	1/4W	F	R612	1-249-415-11	CARBON	680	5%	1/4W	F	
R322	1-247-807-31	CARBON	100	5%	1/4W		R613	1-249-417-11	CARBON	1K	5%	1/4W	F	
R323	1-247-807-31	CARBON	100	5%	1/4W		R614	1-249-419-11	CARBON	1.5K	5%	1/4W	F	
R324	1-249-417-11	CARBON	1K	5%	1/4W	F	R615	1-249-421-11	CARBON	2.2K	5%	1/4W	F	
R325	1-249-417-11	CARBON	1K	5%	1/4W	F	R616	1-249-425-11	CARBON	4.7K	5%	1/4W	F	
R326	1-249-417-11	CARBON	1K	5%	1/4W	F	R617	1-249-430-11	CARBON	12K	5%	1/4W		
R338	1-249-429-11	CARBON	10K	5%	1/4W		R618	1-249-421-11	CARBON	2.2K	5%	1/4W	F	
R341	1-247-807-31	CARBON	100	5%	1/4W		R619	1-249-425-11	CARBON	4.7K	5%	1/4W	F	
	< VIBRATOR >						R620	1-249-430-11	CARBON	12K	5%	1/4W		
X301	1-579-233-11	VIBRATOR, CERAMIC (5MHz)					R621	1-249-430-11	CARBON	12K	5%	1/4W		

*	1-655-482-11	PANEL BOARD					R622	1-249-401-11	CARBON	47	5%	1/4W	F	
	*****							(EXCEPT AEP, UK, G, IT)						
*	1-655-665-11	PANEL SWITCH BOARD					R623	1-249-401-11	CARBON	47	5%	1/4W	F	
	*****							(EXCEPT AEP, UK, G, IT)						
*	1-655-665-11	PANEL SWITCH BOARD					R624	1-249-408-11	CARBON	180	5%	1/4W	F	
	*****							(EXCEPT AEP, UK, G, IT)						
*	4-955-792-21	HOLDER (5M), FL TUBE						< SWITCH >						
	< CAPACITOR >						S601	1-571-760-11	SWITCH, KEY BOARD (TIME)					
C601	1-164-159-11	CERAMIC	0.1uF			50V	S602	1-571-760-11	SWITCH, KEY BOARD (CONTINUE)					
C602	1-164-159-11	CERAMIC	0.1uF			50V	S603	1-571-760-11	SWITCH, KEY BOARD (SHUFFLE)					
	< CONNECTOR >						S604	1-571-760-11	SWITCH, KEY BOARD (PROGRAM)					
* CN202	1-691-902-21	CONNECTOR, FFC/FPC 37P					S605	1-571-760-11	SWITCH, KEY BOARD (■)					
	< DIODE >						S606	1-571-760-11	SWITCH, KEY BOARD (△ OPEN/CLOSE)					
D601	8-719-032-87	DIODE	SEL5420S-TP	(EXCEPT AEP, UK, G, IT)			S607	1-571-760-11	SWITCH, KEY BOARD (DISC SKIP)					
D602	8-719-032-87	DIODE	SEL5420S-TP	(EXCEPT AEP, UK, G, IT)			S608	1-571-760-11	SWITCH, KEY BOARD (◀◀◀◀)					
D603	8-719-032-87	DIODE	SEL5420S-TP	(EXCEPT AEP, UK, G, IT)			S609	1-571-760-11	SWITCH, KEY BOARD (▷)					
D604	8-719-032-87	DIODE	SEL5420S-TP	(EXCEPT AEP, UK, G, IT)			S610	1-571-760-11	SWITCH, KEY BOARD (■■)					
D605	8-719-032-87	DIODE	SEL5420S-TP	(EXCEPT AEP, UK, G, IT)			S611	1-571-760-11	SWITCH, KEY BOARD (DISC 1)					
	< FLUORESCENT INDICATOR >						S612	1-571-760-11	SWITCH, KEY BOARD (▶▶▶▶)					
FL601	1-519-721-31	INDICATOR TUBE, FLUORESCENT					S613	1-571-760-11	SWITCH, KEY BOARD (DISC 2)					
	< RESISTOR >						S614	1-571-760-11	SWITCH, KEY BOARD (DISC 3)					
R601	1-249-413-11	CARBON	470	5%	1/4W	F	S615	1-571-760-11	SWITCH, KEY BOARD (DISC 4)					
R602	1-249-415-11	CARBON	680	5%	1/4W	F	S616	1-571-760-11	SWITCH, KEY BOARD (DISC 5)					
R603	1-249-417-11	CARBON	1K	5%	1/4W	F		*****						

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
MISCELLANEOUS			

6	1-769-507-31	WIRE (FLAT TYPE) (37 CORE)	
* 51	1-452-538-11	MAGNET	
64	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
114	1-654-751-11	FLEXIBLE BOARD	
△151	8-848-387-01	OPTICAL PICK UP BLOCK KSS-213BA/S-N	
152	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
FL601	1-519-721-31	INDICATOR TUBE, FLUORESCENT	
M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4353-976-A	MOTOR ASSY, ROTARY (TABLE)	
M702	A-4353-974-A	MOTOR ASSY, LOADING	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR) (DOWN DET)	

ACCESSORIES & PACKING MATERIALS			

	4-937-945-01	PLATE (TRANSPORT), LOCK	
*	4-973-916-01	CUSHION (FRONT)	
*	4-973-917-01	CUSHION (REAR)	

HARDWARE LIST			

#1	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S	
#2	7-682-554-04	SCREW +B 3X25	
#3	7-685-647-79	SCREW +BTP 3X10 TYPE2 N-S	
#4	7-682-961-01	SCREW +PSW 4X8	
#5	7-685-136-19	SCREW +P 2.6X12 TYPE2 NON-SLIT	
#6	7-621-255-15	SCREW +P 2X3	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

9-960-243-11

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

— 34 —

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Quality Engineering Dept.

SDP-N600

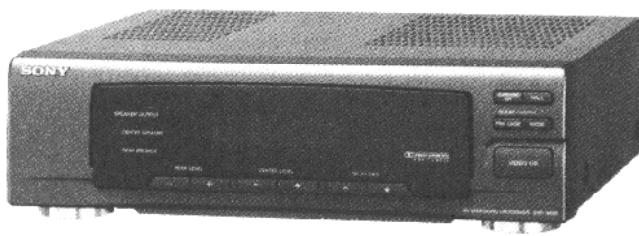
SERVICE MANUAL

AEP Model

UK Model

E Model

Australian Model



SDP-N600 is the Surround processor section in LBT-N650AV.

SPECIFICATIONS

DIN power output			
CENTER	20 W (8 ohms, at 1 kHz)		
REAR	20 W + 20 W (8 ohms, at 1 kHz)		
Continuous RMS power output			
CENTER	23 W (8 ohms, at 1 kHz, 5% THD)		
REAR	23 W + 23 W (8 ohms, at 1 kHz, 5% THD)		
Music power output			
CENTER	28 W (8 ohms, at 1 kHz, 10% THD)		
REAR	28 W + 28 W (8 ohms, at 1 kHz, 10% THD)		

Audio input	Jack type	Sensitivity	Impedance
VIDEO 1	Phono	435 (245) mV	47 kilohms
VIDEO 2	Phono	435 (245) mV	47 kilohms
() : E, Australian model			
Audio output	Jack type	Voltage	Impedance
VIDEO 1	Phono	235 (245) mV	2 kilohms
VIDEO 2	Phono	235 (245) mV	2 kilohms
CENTER	Phono		1 kilohms
OUT			

() : E, Australian model

Video input (phono jacks)			
VIDEO 1	VIDEO 2	1 Vp-p, 75 ohm unbalanced, sync negative	
Video output (phono jacks)			
VIDEO 1			
		1 Vp-p, 75 ohm unbalanced, sync negative	
VIDEO 2		1 Vp-p, 75 ohm unbalanced, sync negative	
MONITOR		1 Vp-p, 75 ohm unbalanced, sync negative	
Power requirements			
AEP, UK, East European, CIS model :			
220-230 V AC, 50/60 Hz			
Australian model:			
220-240 V AC, 50/60 Hz			
Other model:			
110-120 V or 220 V-240 V AC adjustable, 50/60 Hz			
Power consumption 63 W			
Mass	Approx. 4.6 kg		
Dimensions	Approx. 355 x 105 x 320 mm (w/h/d, including projections)		

—Continued on next page—

SURROUND PROCESSOR
SONY®



MICROFILM

SERVICE NOTE

How to confirm the operation with a single unit

- Normally, this set does not operate with a single unit.
The exclusive jig (J-2501-081-A) is necessary to operate the set with a single unit.
The cable attached to set is used for connecting with the jig.

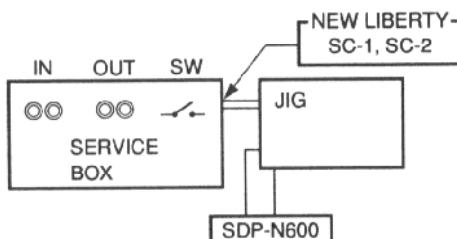
How to turn the power on

- If the power switch of the service box is set to ON, the power supply of the set is turned on. The sound signal is input/output through CN102 (SYSTEM CONTROL 4). In case of using the input/output terminal of SERVICE BOX, press [VIDEO 1/2] key and [SURROUND OFF] key for more than three seconds at once.
- When using the input/output terminals of VIDEO 1 and VIDEO 2 on the unit, press [VIDEO 1/2] key to switch.

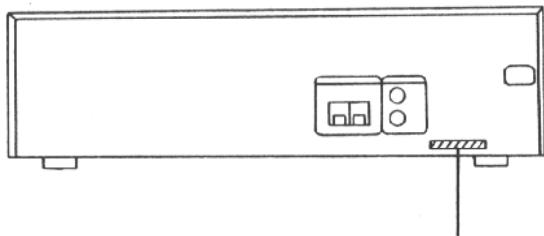
All light up of FL tube

When [REAR LEVEL +] key and [HALL] key are pressed for more than three seconds then press a key, all FL tubes are lit.

After that the display will be changed as KEY 0 to KEY 11 at every pressing keys (eleven times). (The display will not be changed by pressing the same key.) Press a key again to release.



MODEL IDENTIFICATION — BACK PANEL —



	Parts No.
AEP Model	4-971-125-0□
UK Model	4-971-125-1□
EE, CIS Model	4-971-125-2□
E Model	4-971-125-3□
AUS Model	4-971-125-4□

- Abbreviation
EE : East European model.
AUS : Australian model.

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Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING !!

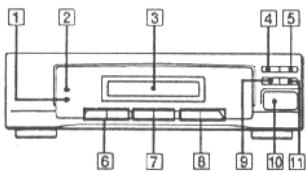
COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1

GENERAL

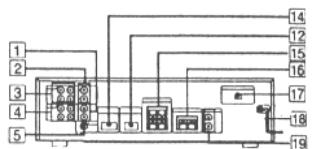
This section is extracted from instruction manual.

Front Panel



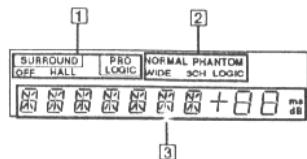
- [1] REAR SPEAKER indication (22)
- [2] CENTER SPEAKER indication (22)
- [3] Display window
- [4] SURROUND OFF button (22)
- [5] HALL button (22)
- [6] REAR LEVEL (+/-) buttons (22)
- [7] CENTER LEVEL (+/-) buttons (22)
- [8] DELAY TIME (+/-) buttons (22)
- [9] DOLBY PRO-LOGIC button (22)
- [10] VIDEO 1/2 button (21, 25)
- [11] DOLBY MODE button (22)

Rear Panel



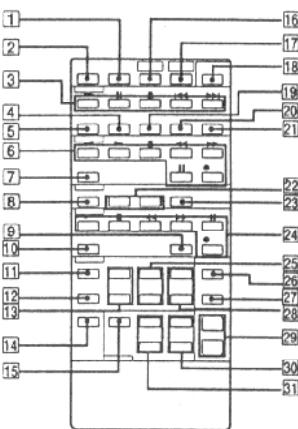
- [1] VIDEO 2 VIDEO IN/OUT jacks (21)
- [2] VIDEO 1 VIDEO IN/OUT jacks (21)
- [3] VIDEO 1 AUDIO IN/OUT jacks (21)
- [4] VIDEO 2 AUDIO IN/OUT jacks (21)
- [5] MONITOR VIDEO OUT (21)
- [12] SYSTEM CONTROL 4 terminals (5)
- [14] SYSTEM CONTROL 3 terminals (5)
- [15] REAR SPEAKER connectors (4)
- [16] CENTER SPEAKER connectors (4)
- [17] VOLTAGE SELECTOR (except for E model) (5)
- [18] AC power cord (6)
- [19] CENTER OUT jacks (21)

Display Window



- [1] Surround mode (SURROUND/OFF/HALL/PRO LOGIC) indications (22)
- [2] Dolby Pro-Logic mode (NORMAL/PHANTOM/WIDE/3CH LOGIC) indications (22)
- [3] Function indications (21)

Remote (RM-S600L)



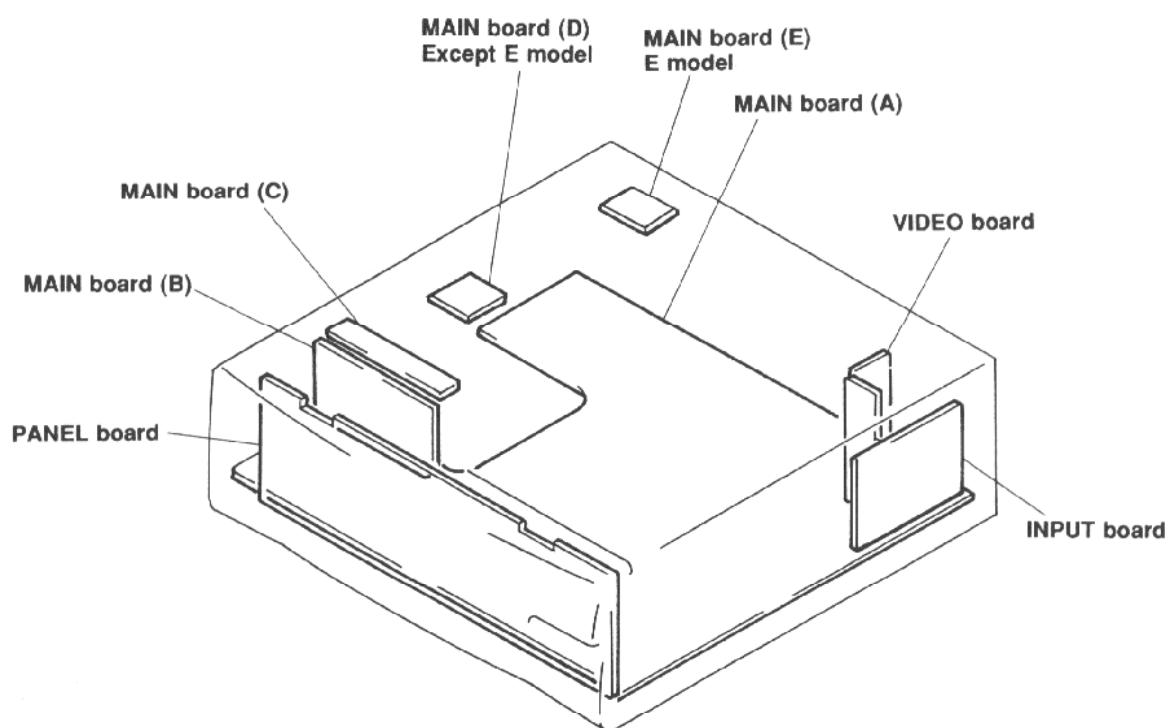
- [1] SLEEP button (23)
- [2] FUNCTION button (14, 17, 21, 25)
- [3] CD operating buttons (7, 8)
- [▶] (play)
- [◀◀/▶▶] (AMS*)
- [■] (stop)
- [■] (stop)
- *AMS: Automatic Music Sensor
- [4] CLEAR button (8)
- [5] CHECK button (8, 15)
- [6] TAPE operating buttons (12)
 - [◀]/[▶] (reverse side play/front side play)
 - [◀◀]/[▶▶] (fast leftward/fast rightward)
 - [■] (stop)
 - [■] (pause)
 - [●] REC
- [7] DECK SELECT A/B selector (12)
- [8] TUNER BAND button (10, 24)
- [9] ANT TV/VTR button*
- [10] VTR 2/3 selector (21)
- [11] TEST TONE button (22)
- [12] SURROUND MODE button (22)
- [13] REAR LEVEL buttons (22)
- [14] VIDEO 1/2 button (21, 25)
- [15] TV/VIDEO button*
- [16] VTR POWER button**
- [17] TV POWER button*
- [18] SYSTEM POWER button (7, 10, 12)
- [19] EDIT button (14, 15)
- [20] REPEAT button (9)
- [21] DISC SKIP button (7)
- [22] PRESET (+/-) buttons (11)
- [23] STEREO/MONO button (10)
- [24] VTR operating buttons**
 - [▶] (play)
 - [◀◀]/[▶▶] (fast leftward/fast rightward)
 - [■] (stop)
 - [■] (pause)
 - [●] REC
- [25] CENTER LEVEL buttons (22)
- [26] SELECT 1-5 button (18, 19)
- [27] P.FILE 1-5 button (18, 19)
- [28] DELAY TIME buttons (22)
- [29] MASTER VOL (Volume) buttons (7, 18, 22)
- [30] CHANNEL buttons*
- [31] VOLUME buttons*

* For use with Sony TVs

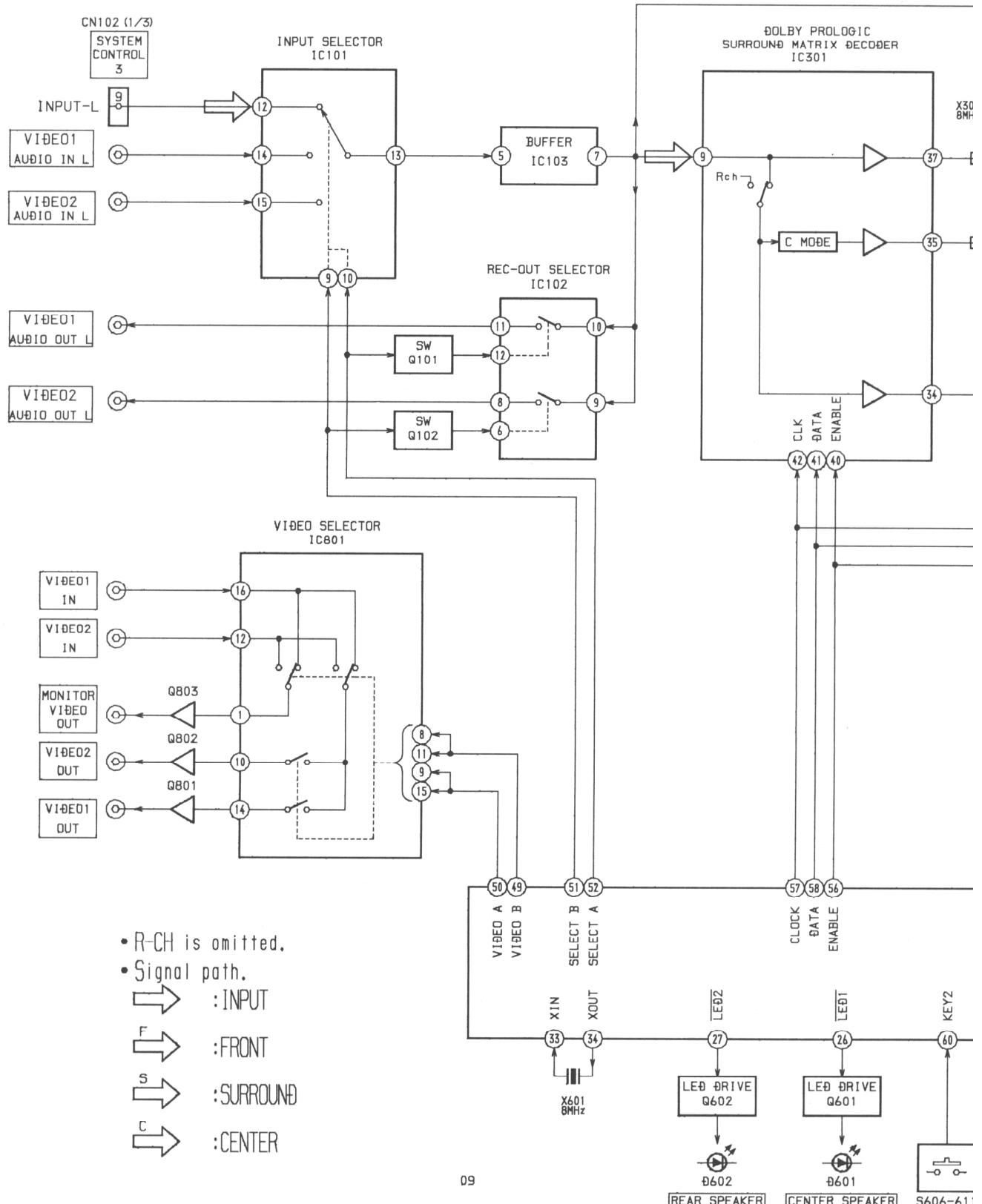
** For use with Sony VCRs

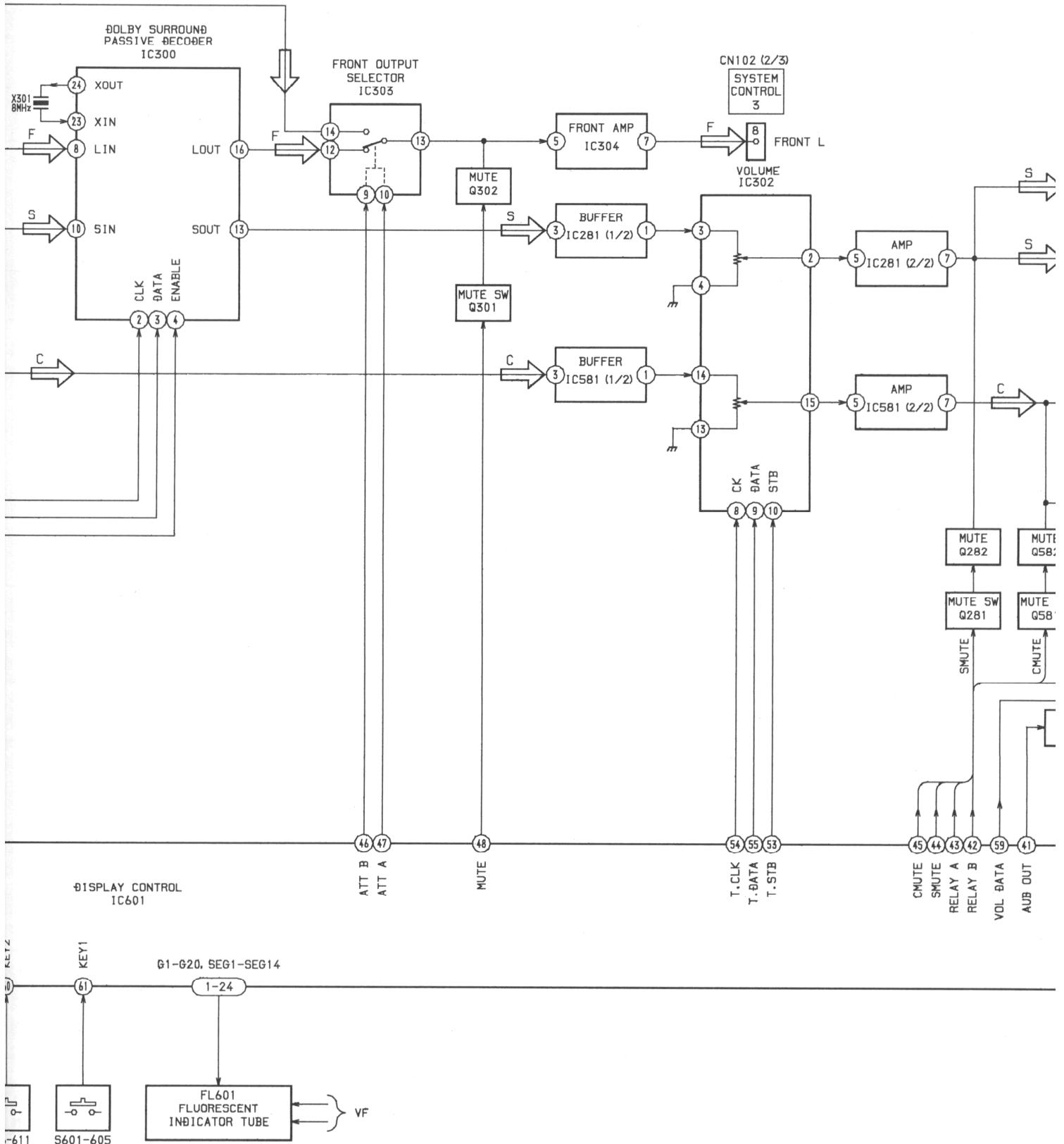
SECTION 2 DIAGRAMS

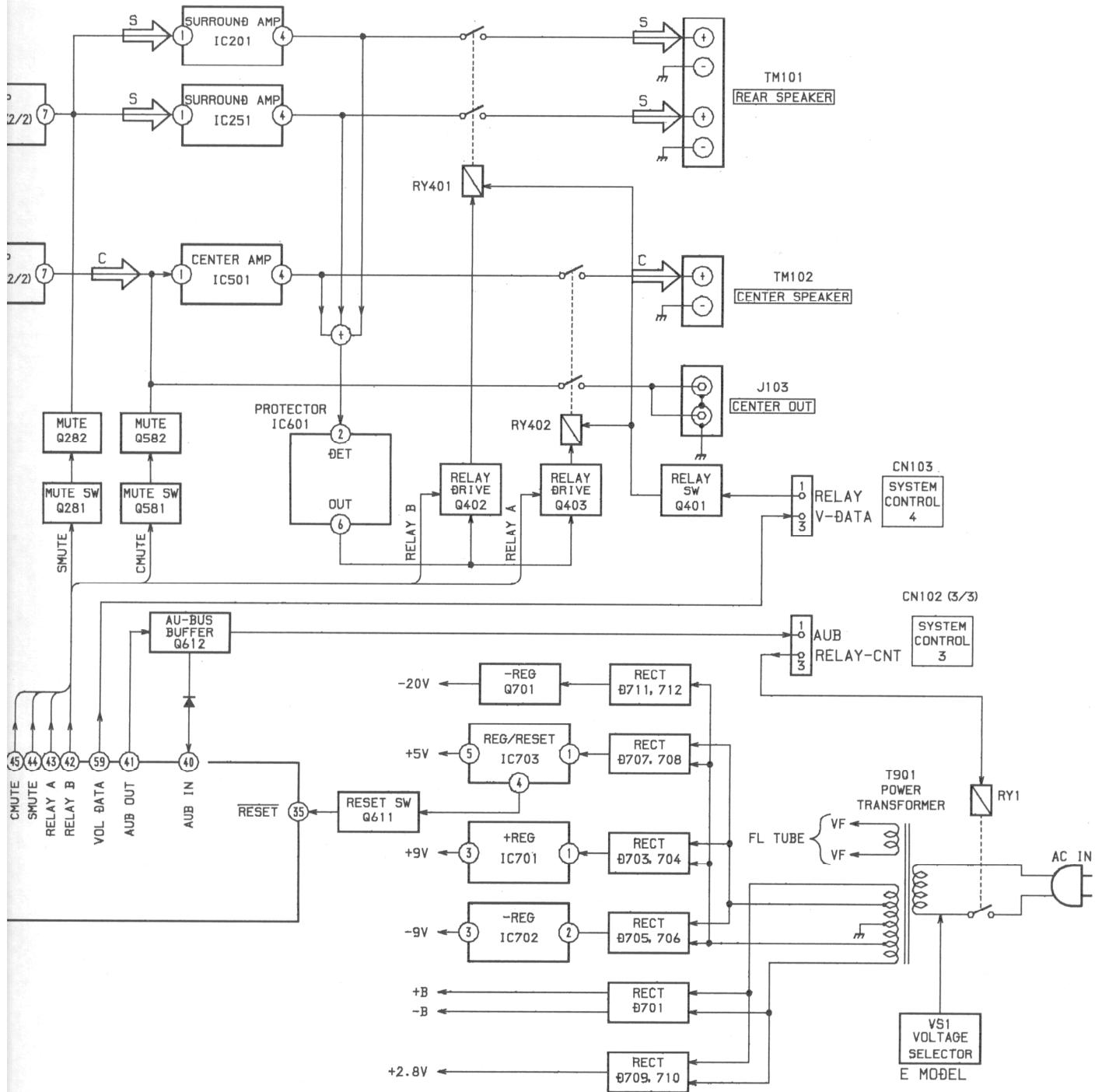
2-1. CIRCUIT BOARDS LOCATION



2-2. BLOCK DIAGRAM







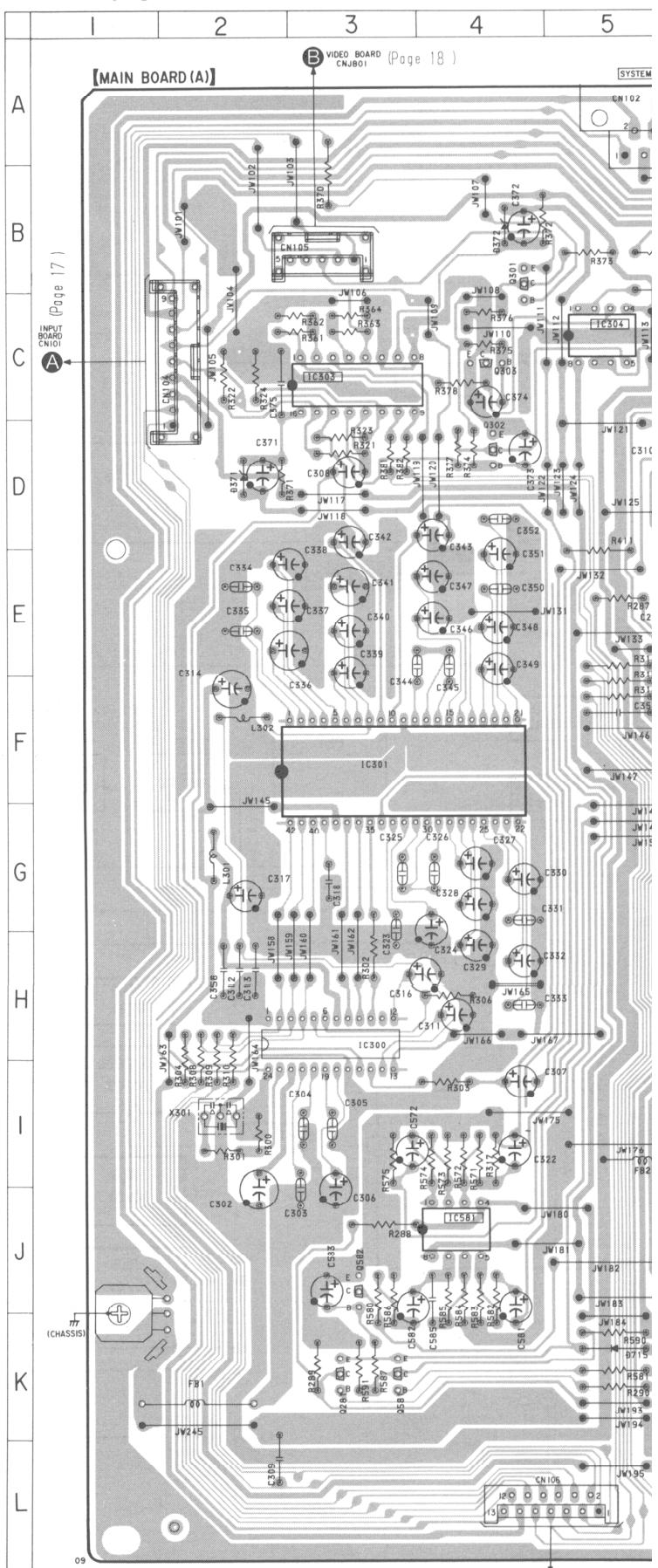
2-3. PRINTED WIRING BOARD — MAIN SECTION —
• See page 4 for Circuit Boards Location.

• Semiconductor Location

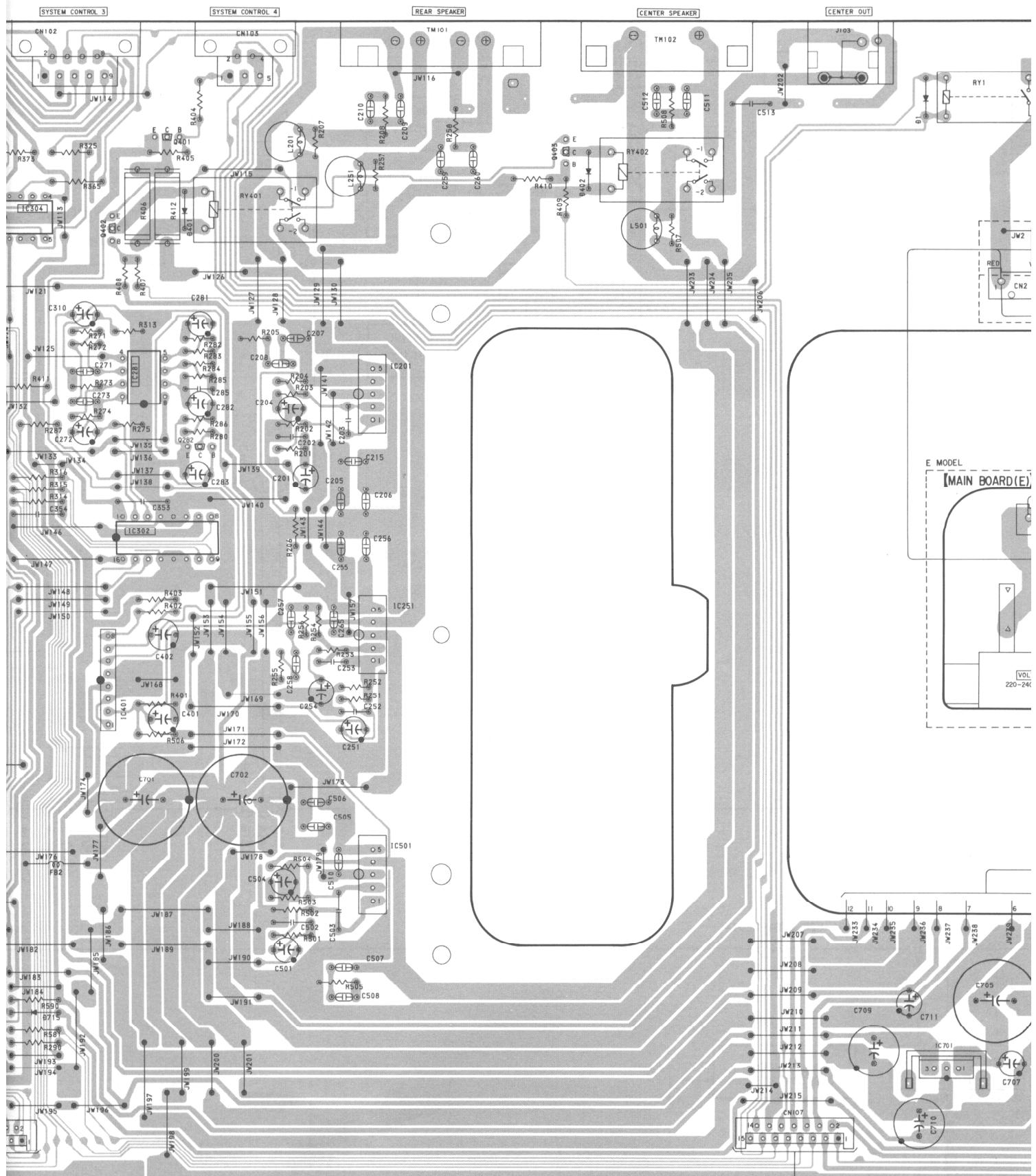
Ref. No.	Location
D1	B-14
D371	D-2
D372	B-4
D401	C-6
D402	B-10
D701	J-19
D703	J-20
D704	J-21
D705	J-20
D706	J-21
D707	K-22
D708	K-22
D709	K-19
D710	K-19
D711	I-22
D712	I-22
D713	J-22
D714	K-18
D715	K-5
IC201	E-8
IC251	G-8
IC281	E-6
IC300	H-3
IC301	F-3
IC302	F-6
IC303	C-3
IC304	C-5
IC401	H-6
IC501	J-8
IC581	J-4
IC701	K-14
IC702	K-15
IC703	K-16
Q281	K-3
Q282	E-7
Q301	C-4
Q302	D-4
Q303	C-4
Q401	B-6
Q402	C-6
Q403	B-10
Q581	K-3
Q582	J-3
Q701	J-22

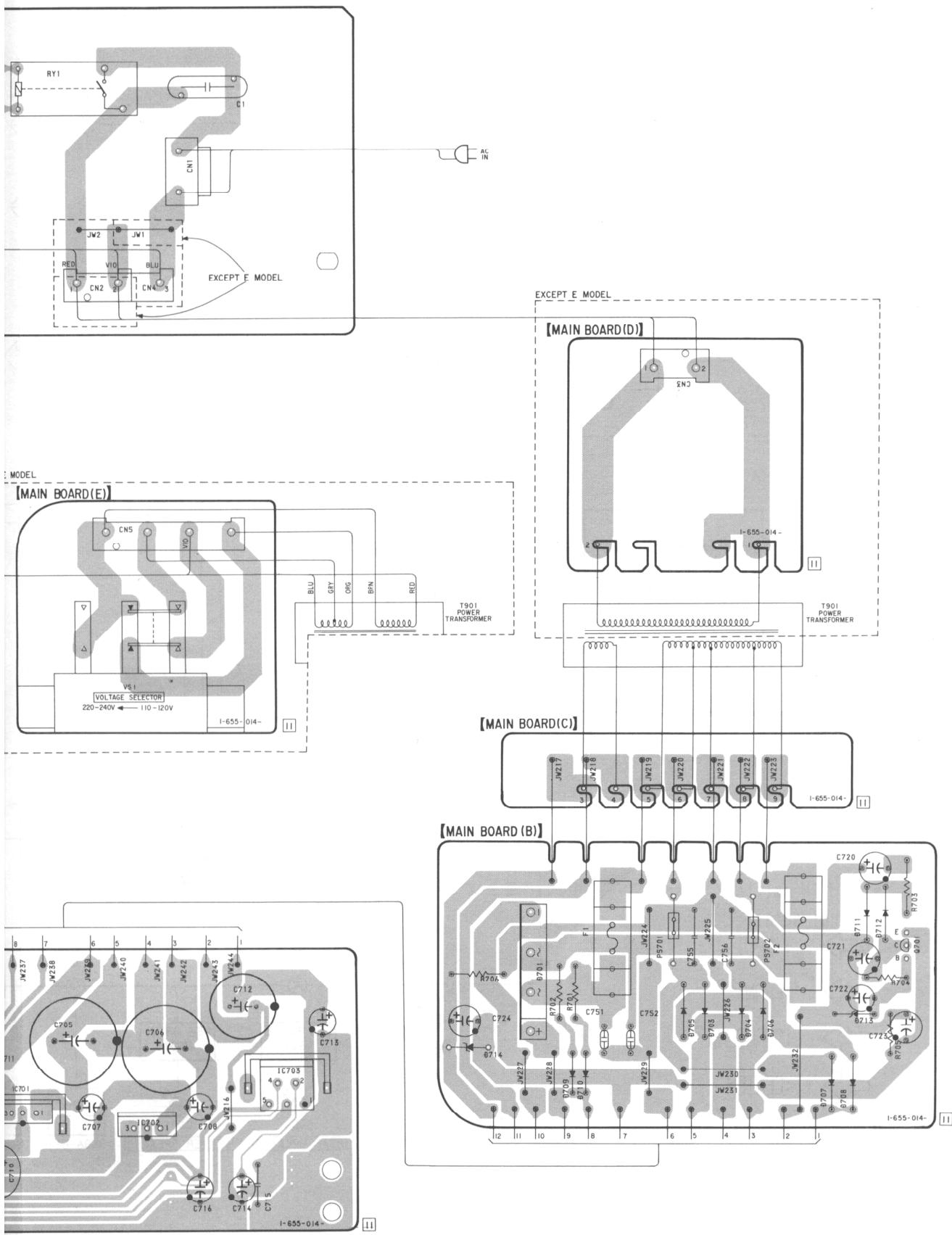
Note:

- : parts extracted from the component side.
- : internal component.
- : Pattern from the side which enable seeing.



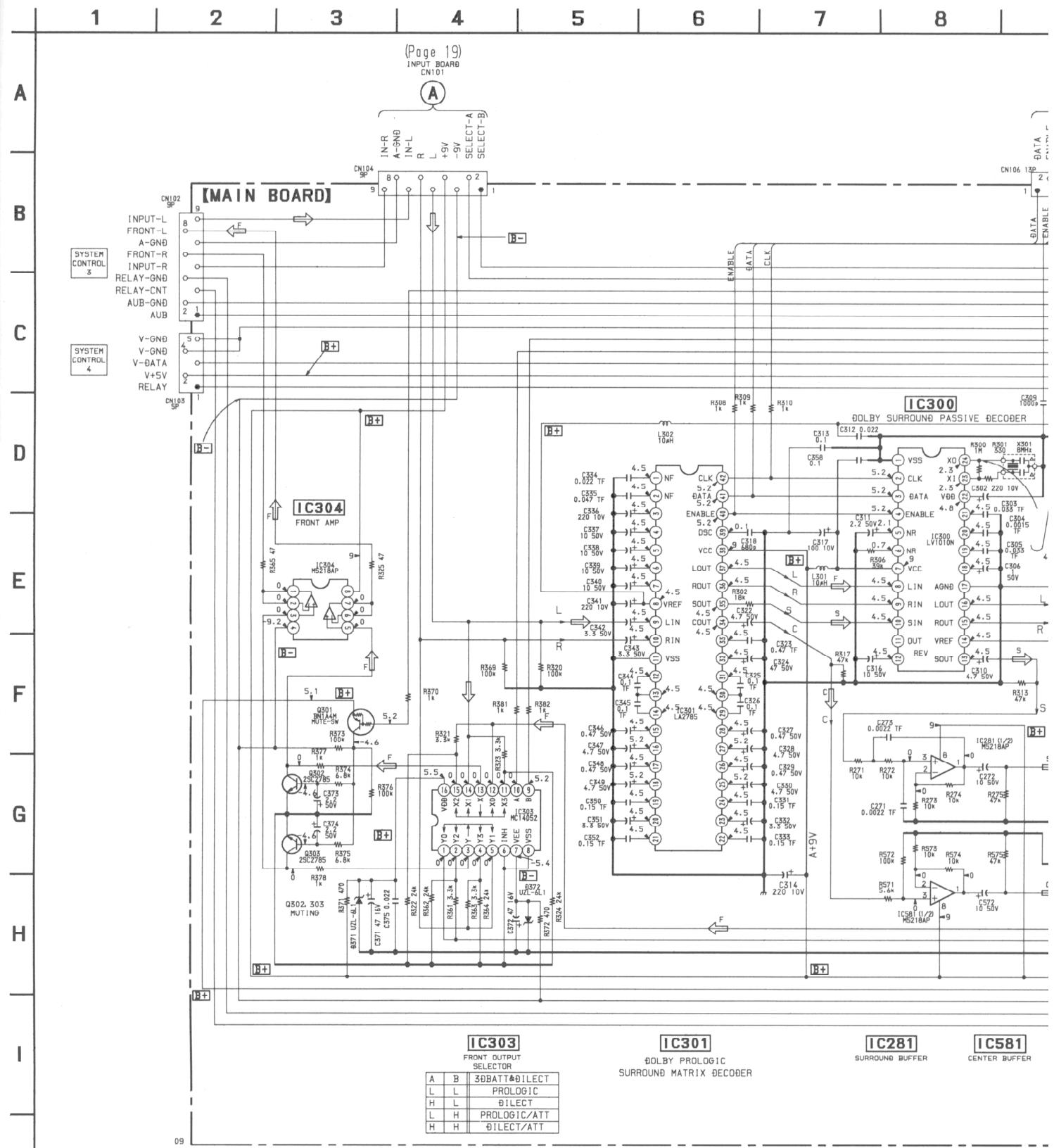
5 6 7 8 9 10 11 12 13 14



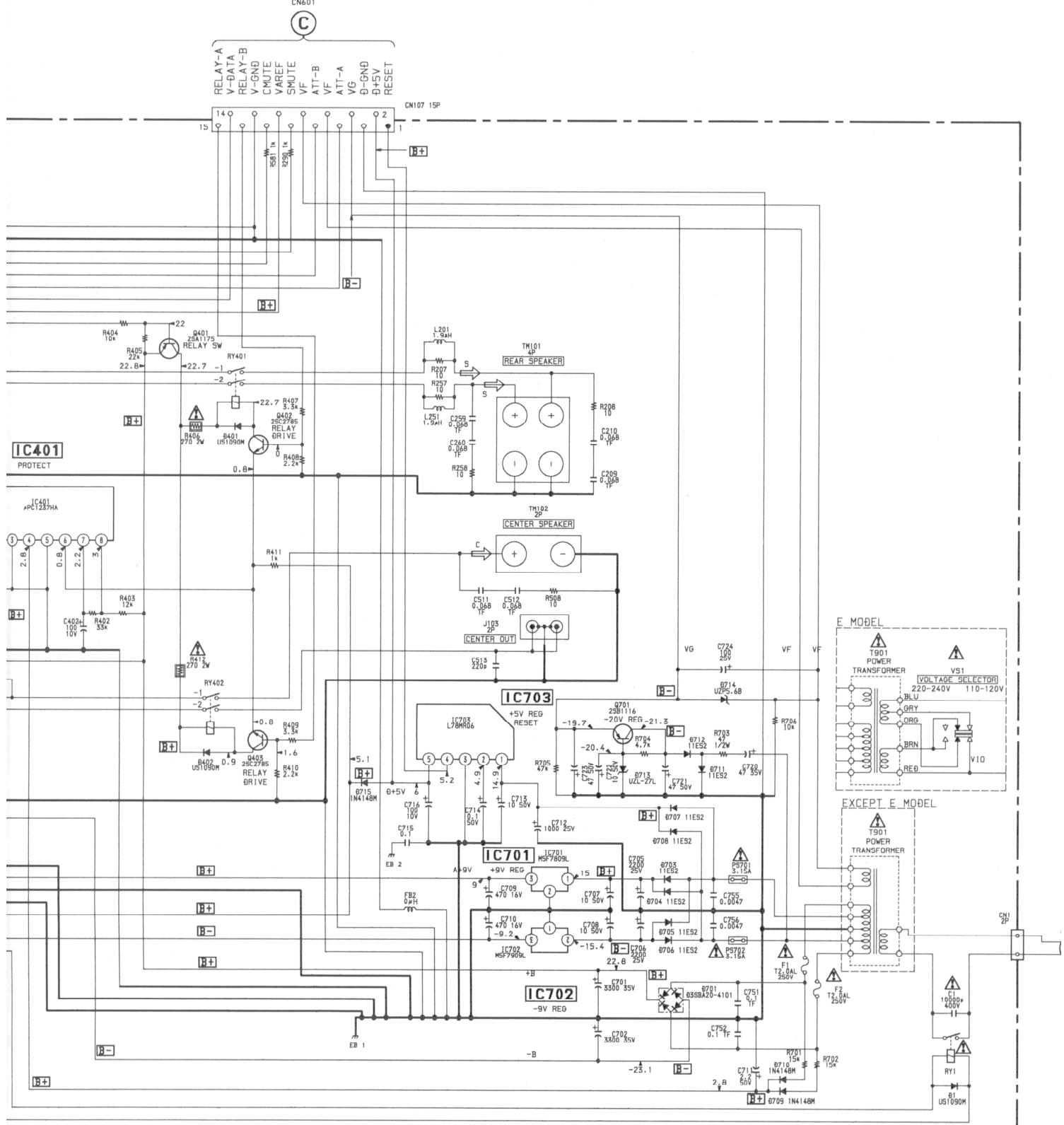


2-4. SCHEMATIC DIAGRAM — MAIN SECTION —

• See page 15 for IC Block Diagrams.



(Page 25)
PANEL BOARD

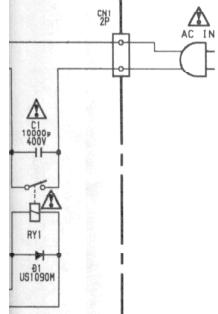
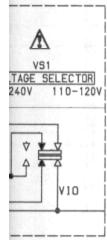


NOTE

- All capacitors are in μF unless otherwise noted. $pF:\mu\mu F$
50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
-  : nonflammable resistor.
- [] : panel designation.

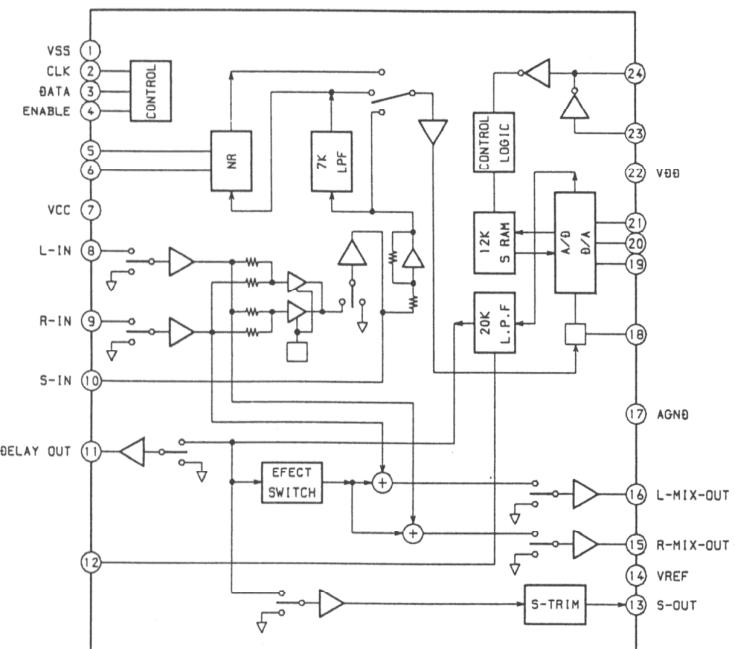
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

-  : B+ Line.
-  : B- Line.
- Voltages and waveforms are dc with respect to ground in service mode. (See page 2)
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - : INPUT
 - F → : FRONT
 - S → : SURROUND
 - C → : CENTER

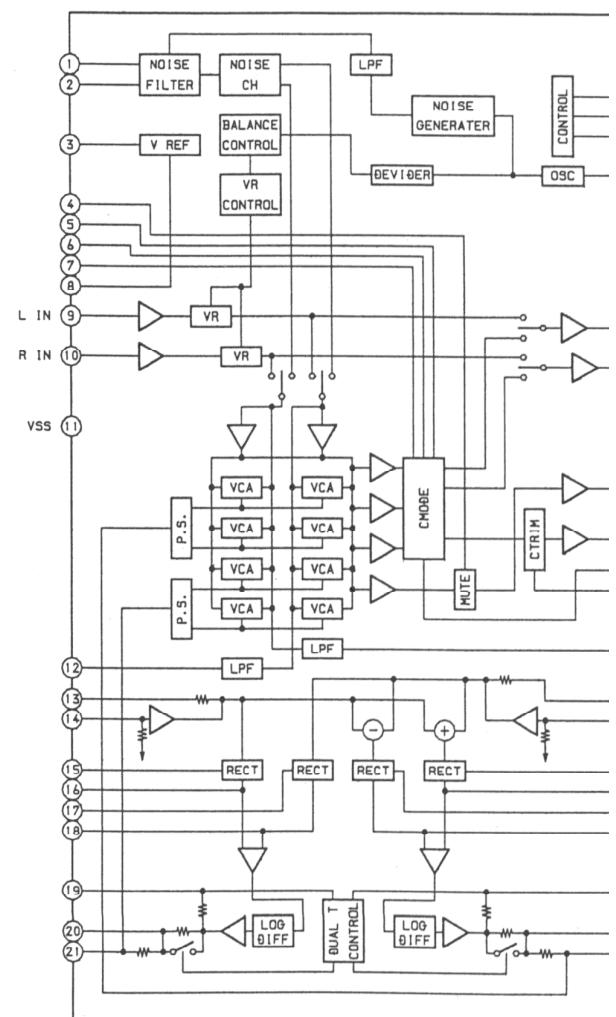


2-5. IC BLOCK DIAGRAMS — MAIN SECTION —

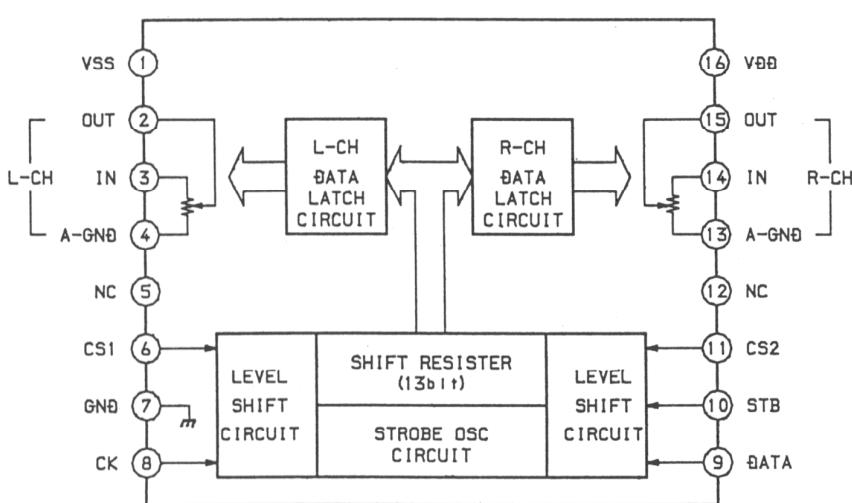
IC300 LV1010N

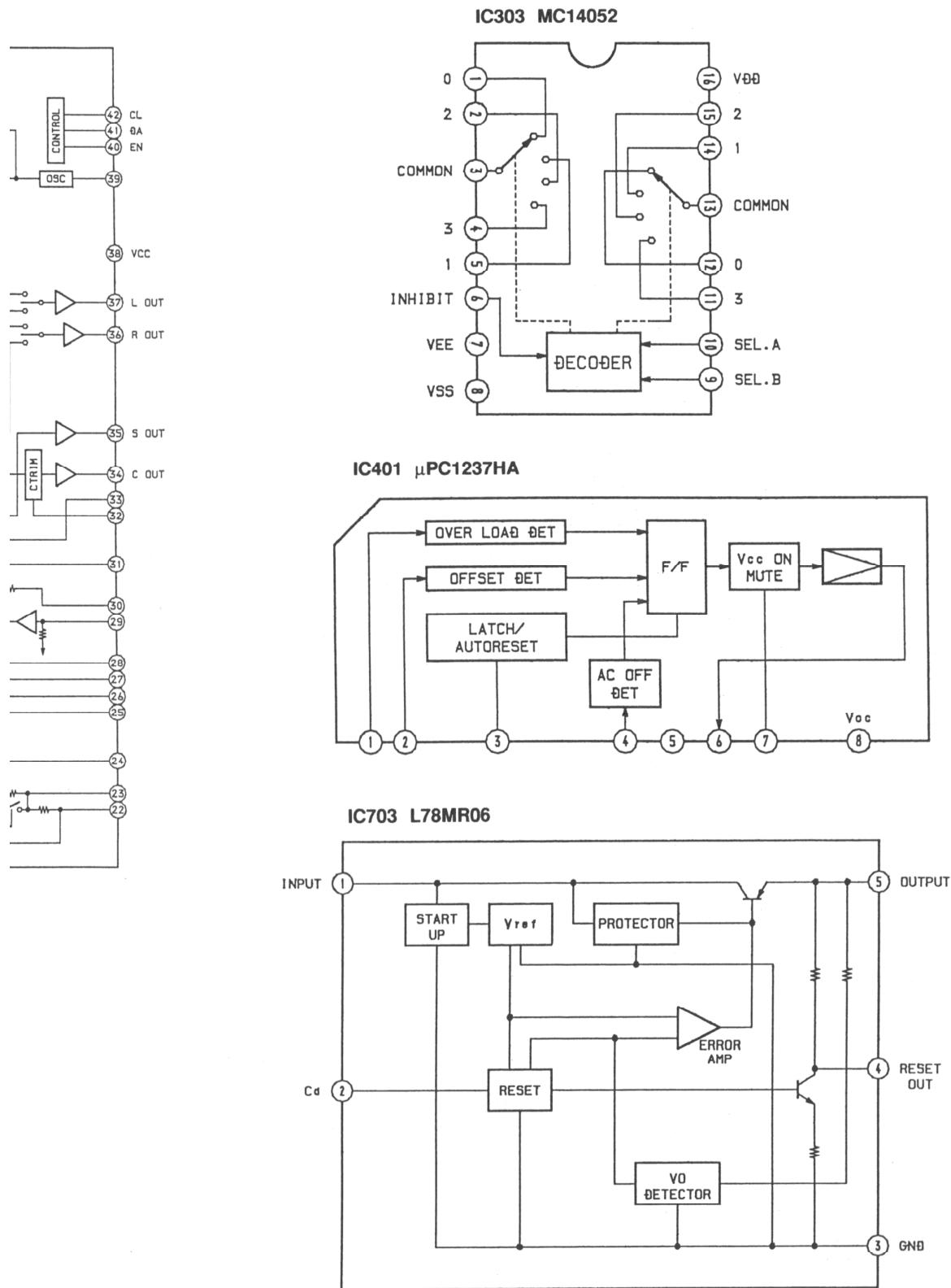


IC301 LA2785



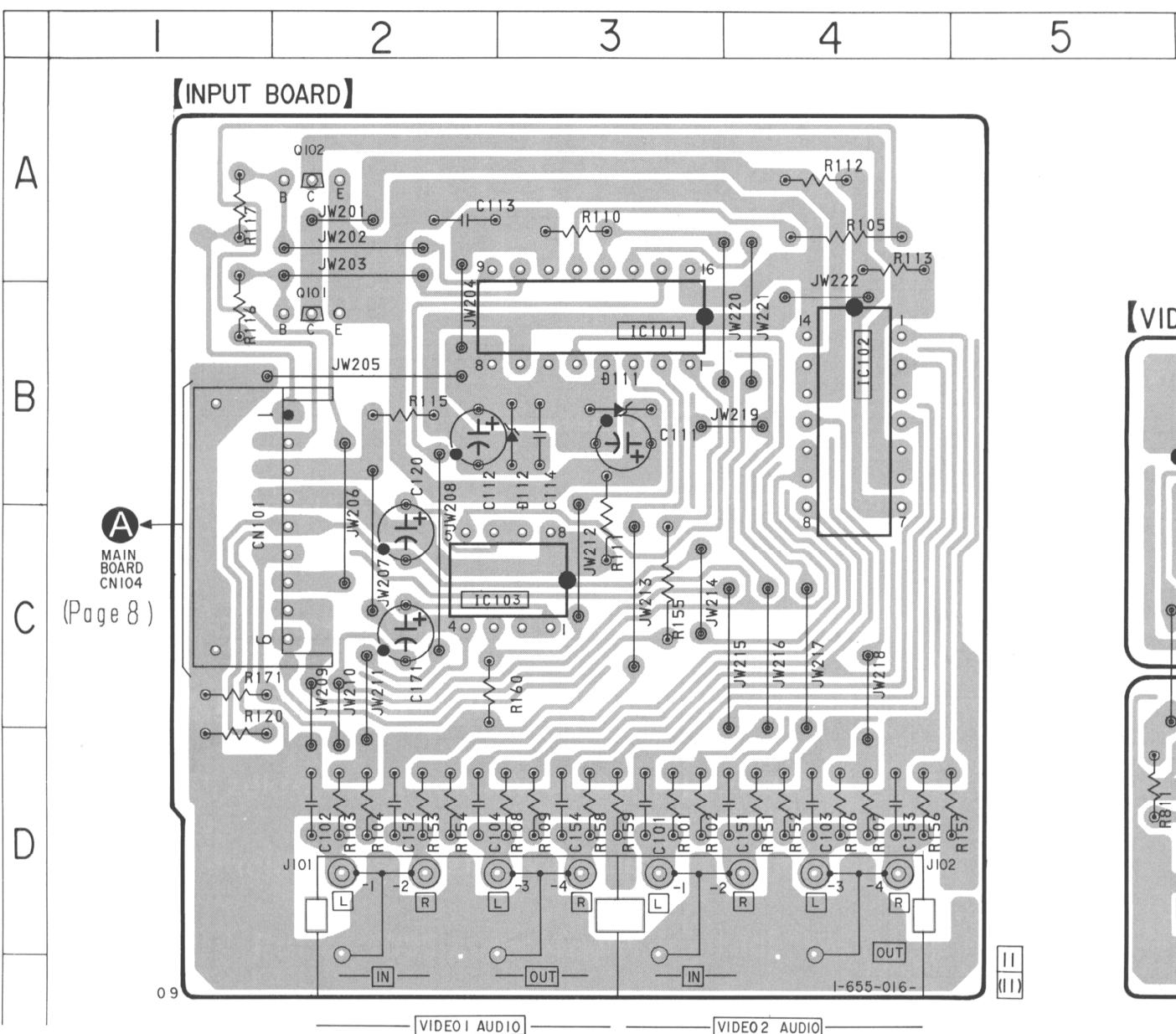
IC302 TC9210P





2-6. PRINTED WIRING BOARD — IN/OUT SECTION —

• See page 4 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
D111	B-3
D112	B-3
IC101	B-3
IC102	B-4
IC103	C-2
IC801	B-6
Q101	B-2
Q102	A-2
Q801	D-6
Q802	D-7
Q803	D-9

Note:

- : parts extracted from the component side.
- : Pattern from the side which enable seeing.

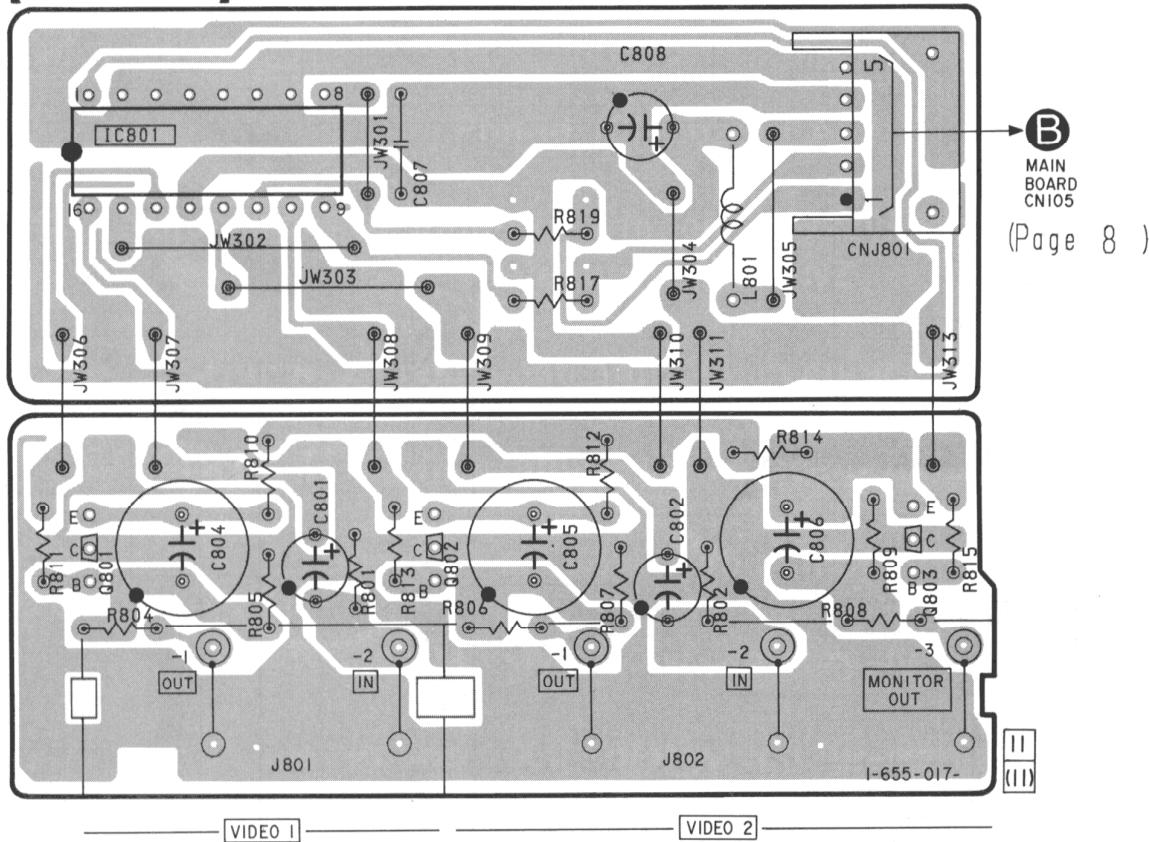
6

7

8

9

[VIDEO BOARD]



2-7. SCHEMATIC DIAGRAM — IN/OUT SECTION —

1 2 3 4 5 6

[INPUT BOARD]

A

B

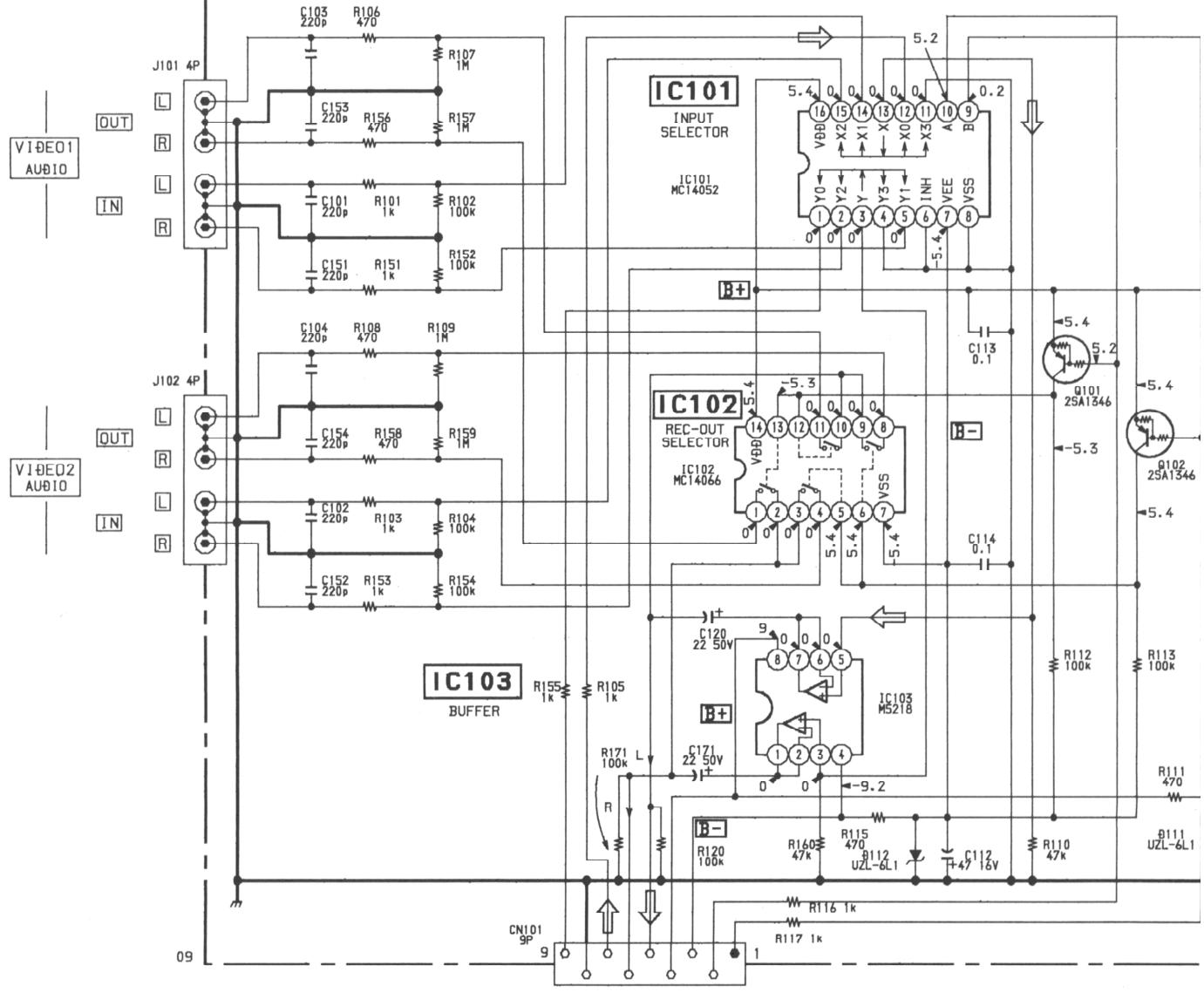
C

D

E

F

G



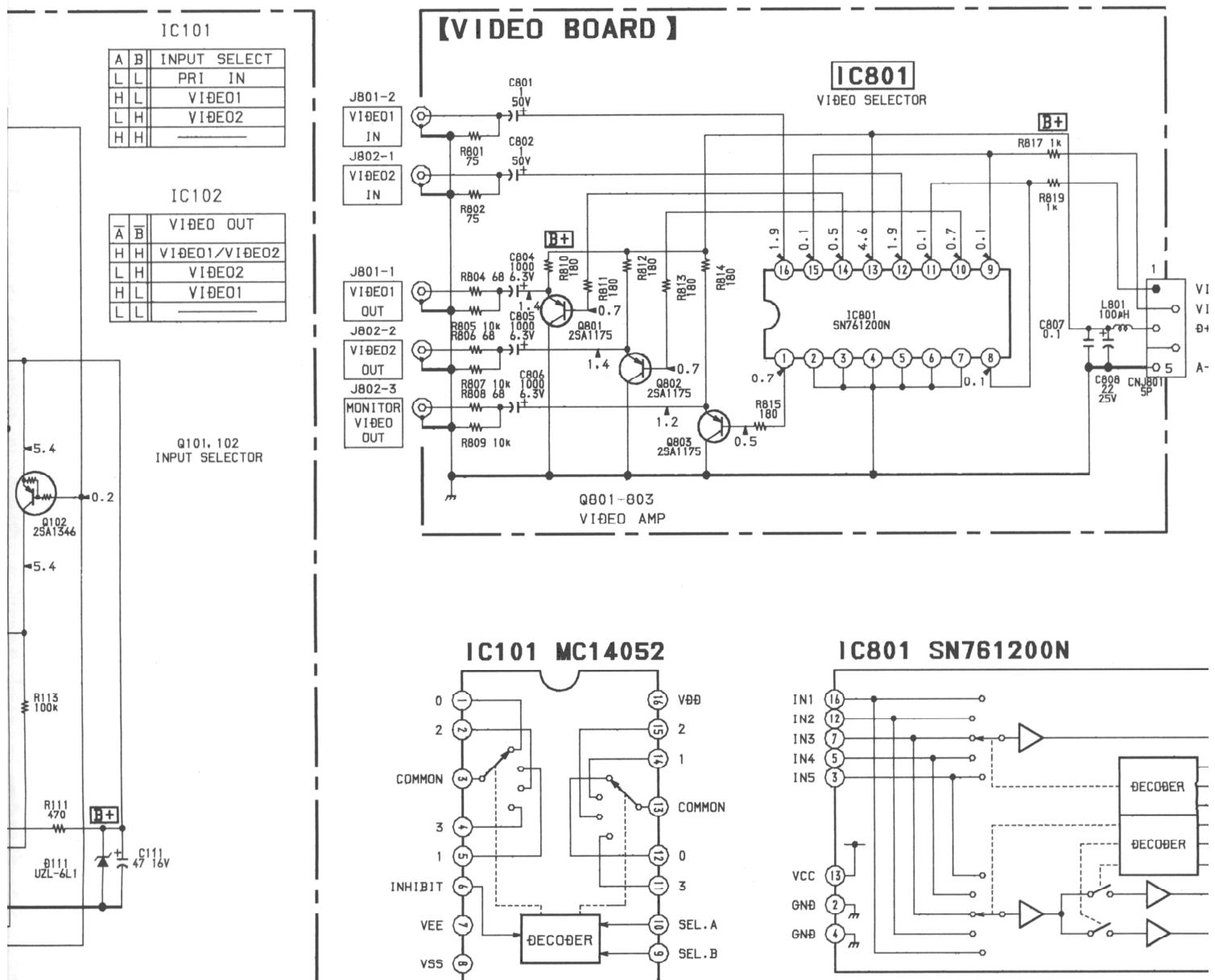
MAIN BOARD
CN104

(Page 11)

NOTE

- All capacitors are in μF unless 50W or less are not indicated and tantalums.
- All resistors are in Ω and 1/2 specified.
- : panel designation.
- Signal path.
→ : INPUT

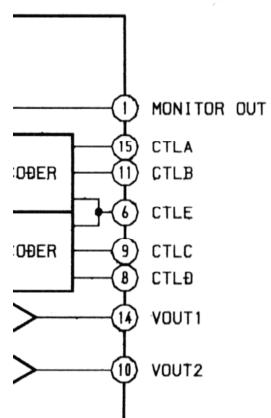
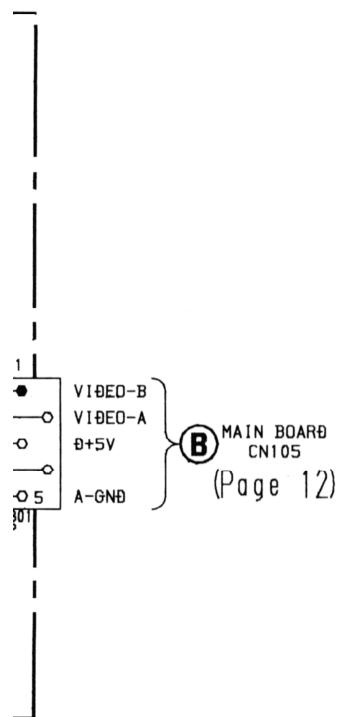
6 7 8 9 10 11 12



μF unless otherwise noted. $\text{pF} : \mu\mu\text{F}$ indicated except for electrolytics

Ω and $1/4\text{W}$ or less unless otherwise indicated.

- **B+** : B+ Line.
- **B-** : B- Line.
- Voltages and waveforms are dc with respect to ground in service mode. (See page 2)
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.



2-9. SCHEMATIC DIAGRAM — PANEL SECTION —

• See page 28 for IC Pin Function. (IC601)

1

2

3

4

5

6

(PANEL BOARD)

FL601
FLUORESCENT INDI

P
LO

SURROUNDED

DELAY

Q601. 602
LED DRIVER

4-4Vp-p 8MHz

IC601 TMP87C814N

ANSWER
SELECT-A
SECTION B

MAIN BOARD
CN107
(Page 13)

RESET
 D+5V
 D-GND
 VG
 ATT-A
 VF
 ATT-B
 VF
 S-MUTE
 VAREF
 C-MUTE
 D-GND
 RELAY-B
 VOL-DATA
 RELAY-A

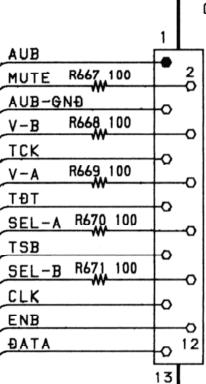
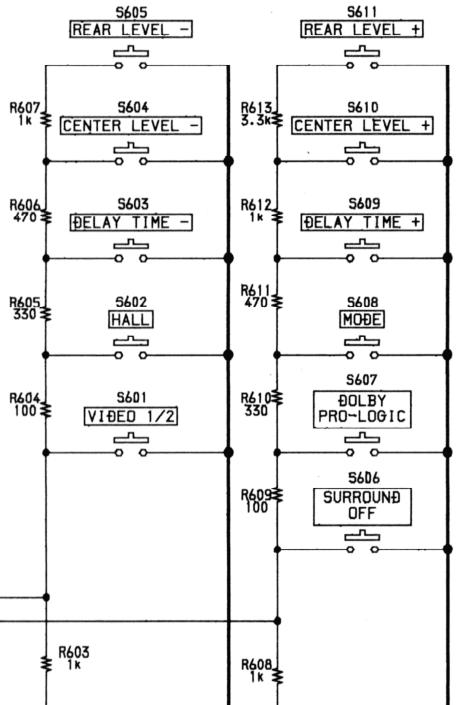
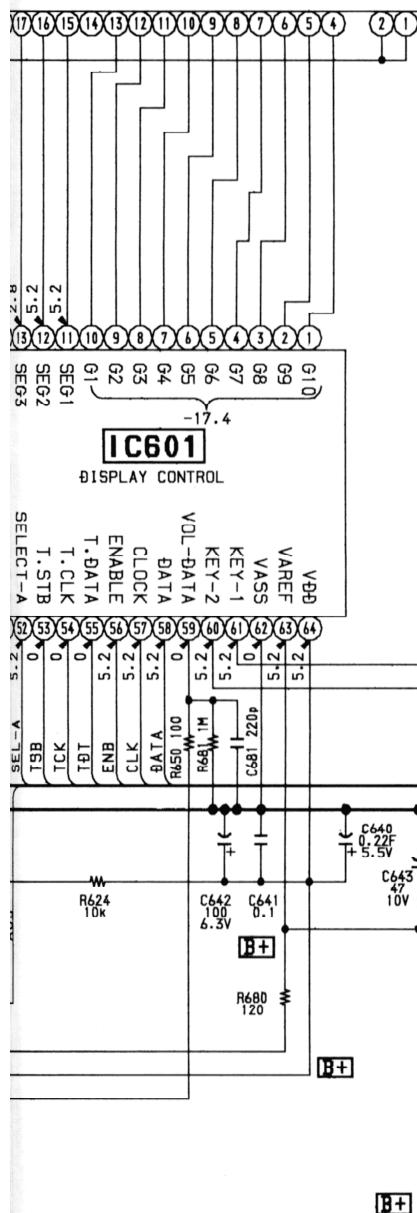
The diagram shows a relay coil connected to ground. Its contacts are numbered 41 through 46. Contact 41 is connected to R632 (4.7k) and R633 (10k). Contact 42 is connected to RELAY-B. Contact 43 is connected to RELAY-A. Contact 44 is connected to SHUTTE. Contact 45 is connected to CMUTE. Contact 46 is connected to ATT-B. A switch labeled 'ATT' is shown with its contacts connected to contacts 41, 42, 43, and 44. A switch labeled 'SHUTTE' is connected to contact 45. A switch labeled 'CMUTE' is connected to contact 46. Resistors R632 (4.7k) and R633 (10k) are also shown.

L601
INDICATOR TUBE

PRO
LOGIC

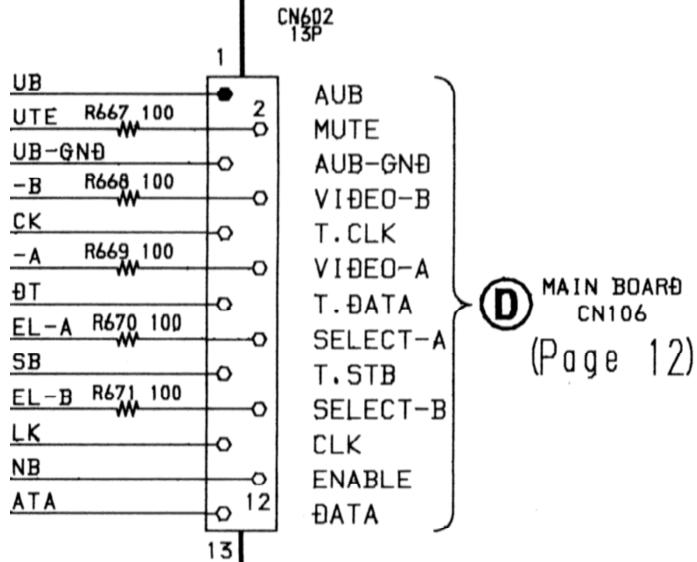
PHANTOM

25 ms



NOTE

- All capacitors are in μF unless 50W or less are not indicated and tantalums.
- All resistors are in Ω and $1/4W$ specified.
- \triangle :internal component.
-  :panel designation.
-  :B+ Line.
-  :B- Line.
- Voltages and waveforms are dc w in service mode. (See page
- Voltages are taken with a VOM (I Voltage variations may be noted
- tion tolerances.
- Waveforms are taken with a osci Voltage variations may be noted
- tion tolerances.



D MAIN BOARD
CN106
(Page 12)

NOTE

- All capacitors are in μF unless otherwise noted. $\text{pF} : \mu\mu\text{F}$ 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Q and 1/4W or less unless otherwise specified.
 - \triangle : internal component.
 - $\boxed{\quad}$: panel designation.
 - $\boxed{\text{B+}}$: B+ Line.
 - $\boxed{\text{B-}}$: B- Line.
- Voltages and waveforms are dc with respect to ground in service mode. (See page 2)
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.

2-10. IC PIN FUNCTION

- IC601 TMP87C814N Display Control

Pin No.	Pin Name	I/O	Function
1 to 10	G1 to G10	O	FL display grid output
11 to 24	SEG1 to SEG14	O	FL display segment output
25	VKK	-	-27V (FL display)
26, 27	LED1, LED2	O	LED driver output
28	—	-	Connect to GND
29, 30	GND	-	GND
31	TEST (L)	-	Connect to GND
32	VSS	-	GND
33	XIN	I	Clock oscillator (8MHz)
34	XOUT	O	
35	RESET	I	System reset input
36, 37	—	-	Connect to GND
38	AC-CUT	I	Power on detect
39	—	-	Connect to GND
40	AUB-IN	I	AU-BUS input
41	AUB-OUT	O	AU-BUS output
42	RELAY-A	O	Center speaker relay drive
43	RELAY-B	O	Rear speaker relay drive
44	SMUTE	O	Rear speaker mute
45	CMUTE	O	Center speaker mute
46	ATT-B	O	Input function ATT control
47	ATT-A	O	
48	MUTE	O	Front speaker mute
49	VIDEO-B	O	Video output select
50	VIDEO-A	O	
51	SELECT-B	O	Audio signal select
52	SELECT-A	O	
53	T. STB	O	IC302 TC9210P strobe output
54	T. DATA	O	IC302 TC9210P data output
55	T. CLK	O	IC302 TC9210P clock output
56	ENABLE	O	IC300 LV1010N & IC301 LA2785 enable output
57	CLOCK	O	IC300 LV1010N & IC301 LA2785 clock output
58	DATA	O	IC300 LV1010N & IC301 LA2785 data output
59	VOL-DATA	O	Volume position data output
60	KEY-2	I	Key input
61	KEY-1	I	
62	VASS	-	GND
63	VAREF	-	AD reference voltage
64	VDD	-	+5V

SECTION 3

EXPLODED VIEWS

NOTE:

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

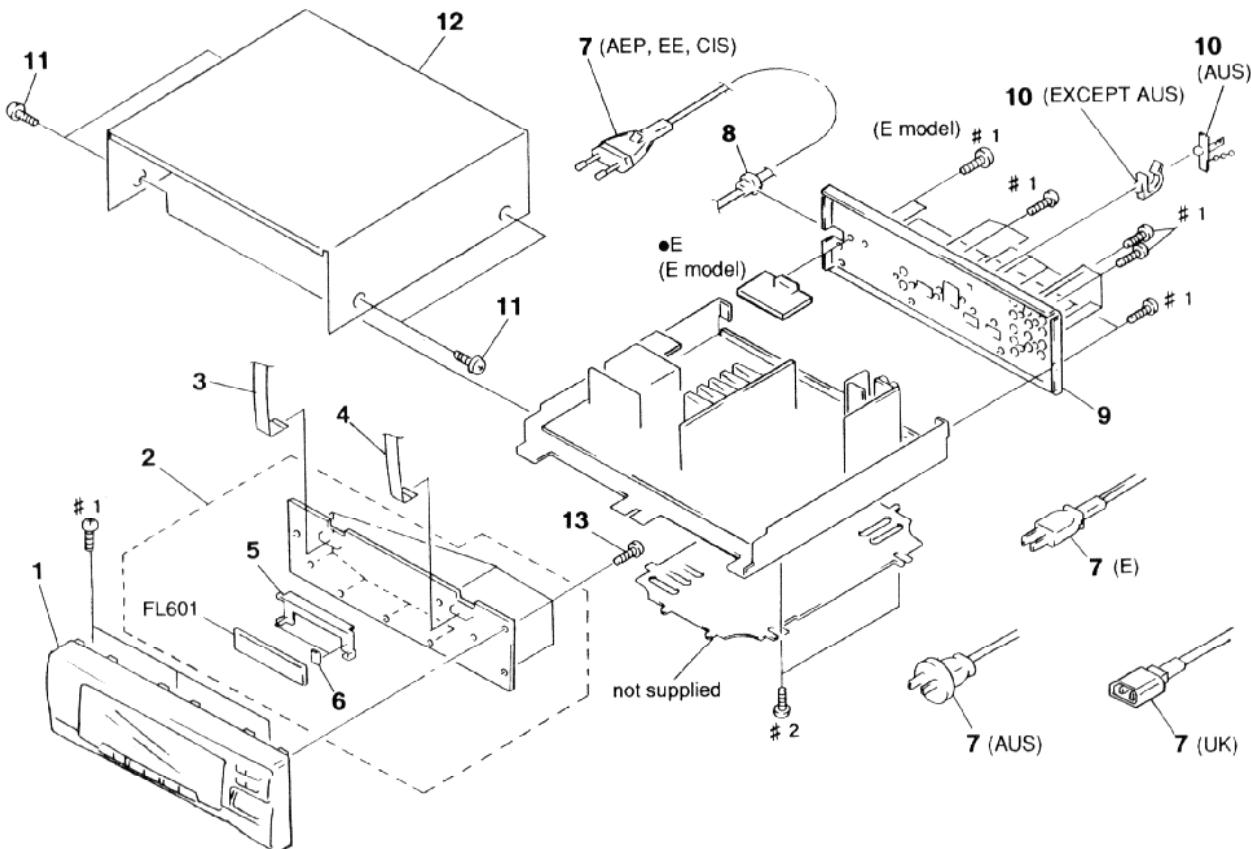
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation

EE : East European model
AUS : Australian model

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

3-1. CASE SECTION

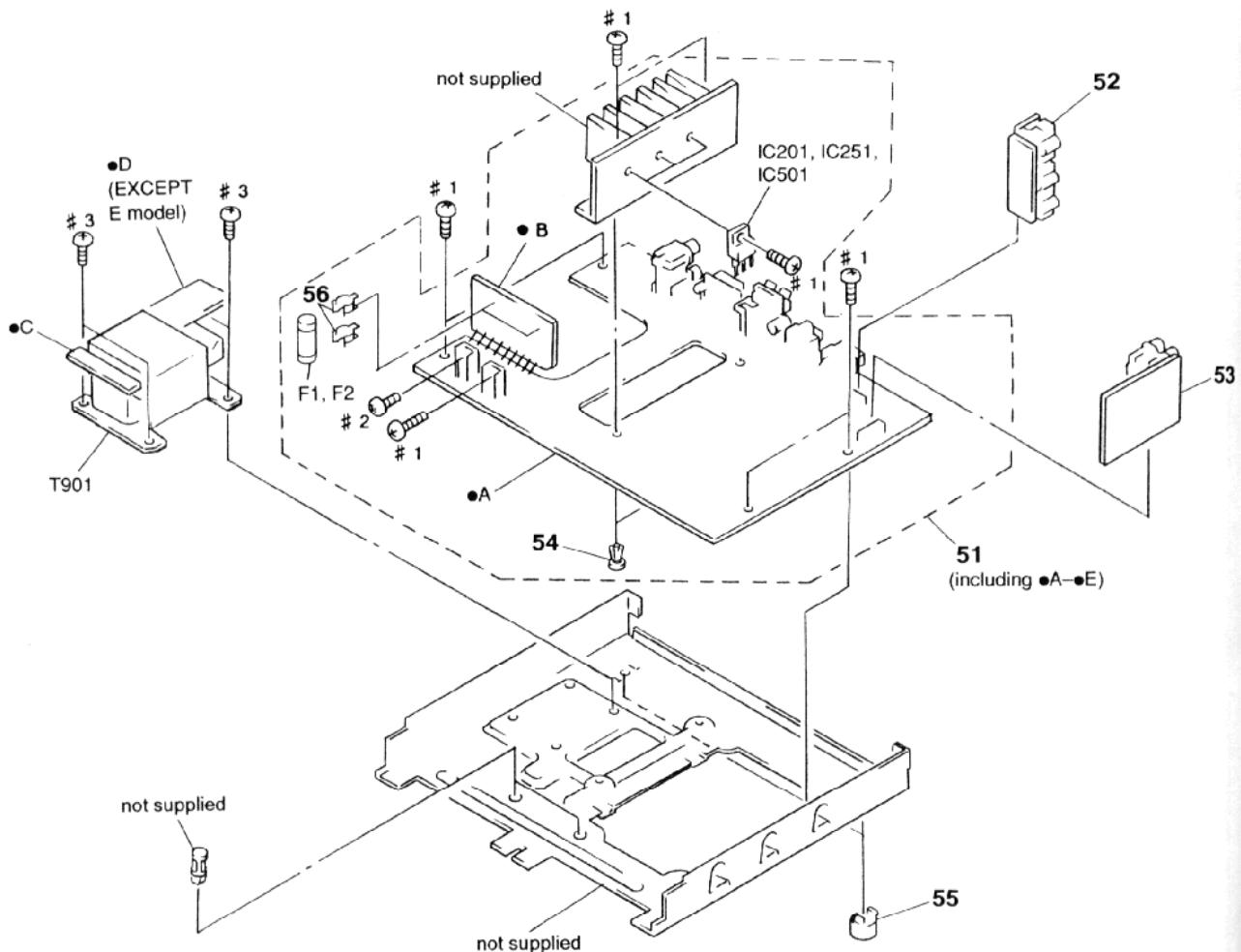
NOTE: • A, • B, • C, and • D are supplied as MAIN board (EXCEPT E model)
• A, • B, • C, and • E are supplied as MAIN board (E model)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4945-616-1	PANEL ASSY, FRONT		* 9	4-971-125-01	PANEL, BACK (AEP)	
* 2	A-4377-258-A	PANEL BOARD, COMPLETE		* 9	4-971-125-11	PANEL, BACK (UK)	
3	1-690-094-11	WIRE, FLAT TYPE (15 CORE)		* 9	4-971-125-22	PANEL, BACK (EE, CIS)	
4	1-590-036-11	WIRE, FLAT TYPE (13 CORE)		* 9	4-971-125-31	PANEL, BACK (E)	
* 5	4-971-122-01	HOLDER, FL TUBE		* 9	4-971-125-41	PANEL, BACK (AUS)	
* 6	4-949-935-01	CUSHION (FL)		* 10	4-949-235-01	HOOK (EXCEPT AUS)	
\triangle 7	1-575-651-71	CORD, POWER (AEP, EE, CIS)		10	4-956-370-12	BAND, PLUG FIXED (AUS)	
\triangle 7	1-590-379-11	CORD, POWER (UK)		11	3-363-099-01	SCREW (CASE 3 TP2)	
\triangle 7	1-775-304-11	CORD, POWER (E)		12	4-969-777-31	CASE	
\triangle 7	1-775-305-11	CORD, POWER (AUS)		13	4-951-620-01	SCREW (2.6X8), +BVTP	
* 8	3-703-244-00	BUSHING (2104), CORD (EXCEPT E)		FL601	1-517-399-11	INDICATOR TUBE, FLUORESCENT	
	3-703-571-11	BUSHING (S)(4516), CORD (E)					

3-2. MAIN BOARD SECTION

NOTE: • A, • B, • C, and • D are supplied as MAIN board (EXCEPT E model)
 • A, • B, • C, and • E are supplied as MAIN board (E model)



The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
 Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	A-4377-257-A	MAIN BOARD, COMPLETE (AEP, UK, EE, CIS)		\triangle F1	1-532-203-00	FUSE (T2. 0A 250V)	
* 51	A-4378-424-A	MAIN BOARD, COMPLETE (E)		\triangle F2	1-532-203-00	FUSE (T2. 0A 250V)	
* 51	A-4378-425-A	MAIN BOARD, COMPLETE (AUS)		IC201	8-759-502-32	IC SI-18752N	
* 52	1-655-017-11	VIDEO BOARD		IC251	8-759-502-32	IC SI-18752N	
* 53	A-4377-259-A	INPUT BOARD, COMPLETE		IC501	8-759-502-32	IC SI-18752N	
54	4-812-134-00	RIVET NYLON, 3.5		\triangle T901	1-427-781-11	TRANSFORMER, POWER (AEP, UK, EE, CIS)	
55	X-4941-228-1	FOOT ASSY		\triangle T901	1-429-099-11	TRANSFORMER, POWER (E, AUS)	
	1-533-217-31	HOLDER, FUSE					

SECTION 4

ELECTRICAL PARTS LIST

INPUT MAIN

NOTE:

The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• RESISTORS

All resistors are in ohms

METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F : nonflammable

- SEMICONDUCTORS
In each case, u : μ , for example:
 $uA...$: $\mu A...$, $uPA...$: $\mu PA...$, $uPB...$: $\mu PB...$,
 $uPC...$: $\mu PC...$, $uPD...$: $\mu PD...$
- CAPACITORS
 uF : μF
- COILS
 uH : μH
- Abbreviation

EE	: East European model
AUS	: Australian model

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C201	1-124-907-11	ELECT	10uF	20%	50V	C324	1-124-477-11	ELECT	47uF	20%	25V
C202	1-162-282-31	CERAMIC	100PF	10%	50V	C325	1-136-165-00	FILM	0.1uF	5%	50V
C203	1-162-282-31	CERAMIC	100PF	10%	50V	C326	1-136-165-00	FILM	0.1uF	5%	50V
C204	1-126-233-11	ELECT	22uF	20%	50V	C327	1-124-902-00	ELECT	0.47uF	20%	50V
						C328	1-126-963-11	ELECT	4.7uF	20%	50V
C205	1-136-165-00	FILM	0.1uF	5%	50V	C329	1-124-902-00	ELECT	0.47uF	20%	50V
C206	1-136-165-00	FILM	0.1uF	5%	50V	C330	1-126-963-11	ELECT	4.7uF	20%	50V
C207	1-136-495-11	FILM	0.068uF	5%	50V	C331	1-136-167-00	FILM	0.15uF	5%	50V
C208	1-136-495-11	FILM	0.068uF	5%	50V	C332	1-126-962-11	ELECT	3.3uF	20%	50V
C209	1-136-495-11	FILM	0.068uF	5%	50V	C333	1-136-167-00	FILM	0.15uF	5%	50V
C210	1-136-495-11	FILM	0.068uF	5%	50V	C334	1-136-157-00	FILM	0.022uF	5%	50V
C215	1-136-153-00	FILM	0.01uF	5%	50V	C335	1-136-161-00	FILM	0.047uF	5%	50V
C251	1-124-907-11	ELECT	10uF	20%	50V	C336	1-104-666-11	ELECT	220uF	20%	10V
C252	1-162-282-31	CERAMIC	100PF	10%	50V	C337	1-124-907-11	ELECT	10uF	20%	50V
C253	1-162-282-31	CERAMIC	100PF	10%	50V	C338	1-124-907-11	ELECT	10uF	20%	50V
C254	1-126-233-11	ELECT	22uF	20%	50V	C339	1-124-907-11	ELECT	10uF	20%	50V
C255	1-136-165-00	FILM	0.1uF	5%	50V	C340	1-124-907-11	ELECT	10uF	20%	50V
C256	1-136-165-00	FILM	0.1uF	5%	50V	C341	1-104-666-11	ELECT	220uF	20%	10V
C257	1-136-495-11	FILM	0.068uF	5%	50V	C342	1-126-962-11	ELECT	3.3uF	20%	50V
C258	1-136-495-11	FILM	0.068uF	5%	50V	C343	1-126-962-11	ELECT	3.3uF	20%	50V
C259	1-136-495-11	FILM	0.068uF	5%	50V	C344	1-136-165-00	FILM	0.1uF	5%	50V
C260	1-136-495-11	FILM	0.068uF	5%	50V	C345	1-136-165-00	FILM	0.1uF	5%	50V
C265	1-136-153-00	FILM	0.01uF	5%	50V	C346	1-124-902-00	ELECT	0.47uF	20%	50V
C271	1-106-351-00	MYLAR	2200PF	5%	200V (AEP, UK, EE, CIS)	C347	1-126-963-11	ELECT	4.7uF	20%	50V
C271	1-137-366-11	FILM	0.0022uF	5%	50V (E, AUS)	C348	1-124-902-00	ELECT	0.47uF	20%	50V
C272	1-124-907-11	ELECT	10uF	20%	50V	C349	1-126-963-11	ELECT	4.7uF	20%	50V
C273	1-106-351-00	MYLAR	2200PF	5%	200V (AEP, UK, EE, CIS)	C350	1-136-167-00	FILM	0.15uF	5%	50V
C273	1-137-366-11	FILM	0.0022uF	5%	50V (E, AUS)	C351	1-126-962-11	ELECT	3.3uF	20%	50V
C281	1-124-925-11	ELECT	2.2uF	20%	100V	C352	1-136-167-00	FILM	0.15uF	5%	50V
C282	1-124-907-11	ELECT	10uF	20%	50V	C353	1-161-494-00	CERAMIC	0.022uF	25V	
C283	1-124-925-11	ELECT	2.2uF	20%	100V	C354	1-162-282-31	CERAMIC	100PF	10%	50V
C285	1-162-217-31	CERAMIC	56PF	5%	50V	C358	1-164-159-11	CERAMIC	0.1uF	50V	
C302	1-104-666-11	ELECT	220uF	20%	10V	C371	1-104-664-11	ELECT	47uF	20%	16V
C303	1-136-159-00	FILM	0.033uF	5%	50V	C372	1-104-664-11	ELECT	47uF	20%	16V
C304	1-106-347-00	MYLAR	1500PF	5%	200V	C373	1-124-925-11	ELECT	2.2uF	20%	100V
C305	1-136-159-00	FILM	0.033uF	5%	50V	C374	1-124-925-11	ELECT	2.2uF	20%	100V
C306	1-124-903-11	ELECT	1uF	20%	50V	C375	1-161-494-00	CERAMIC	0.022uF	25V	
C307	1-124-907-11	ELECT	10uF	20%	50V	C401	1-104-666-11	ELECT	220uF	20%	10V
C308	1-124-907-11	ELECT	10uF	20%	50V	C402	1-124-443-00	ELECT	100uF	20%	10V
C309	1-162-294-31	CERAMIC	0.001uF	10%	50V	C501	1-124-907-11	ELECT	10uF	20%	50V
C310	1-126-963-11	ELECT	4.7uF	20%	50V	C502	1-162-282-31	CERAMIC	100PF	10%	50V
C311	1-124-925-11	ELECT	2.2uF	20%	100V	C503	1-162-282-31	CERAMIC	100PF	10%	50V
C312	1-162-596-11	CERAMIC	0.022uF	30%	25V	C504	1-126-233-11	ELECT	22uF	20%	50V
C313	1-164-159-11	CERAMIC	0.1uF	50V		C505	1-136-165-00	FILM	0.1uF	5%	50V
C314	1-104-666-11	ELECT	220uF	20%	10V	C506	1-136-165-00	FILM	0.1uF	5%	50V
C316	1-124-907-11	ELECT	10uF	20%	50V	C507	1-136-495-11	FILM	0.068uF	5%	50V
C317	1-124-443-00	ELECT	100uF	20%	10V	C508	1-136-495-11	FILM	0.068uF	5%	50V
C318	1-162-292-31	CERAMIC	680PF	10%	50V	C510	1-136-153-00	FILM	0.01uF	5%	50V
C322	1-126-963-11	ELECT	4.7uF	20%	50V	C511	1-136-495-11	FILM	0.068uF	5%	50V
C323	1-136-173-00	FILM	0.47uF	5%	50V	C512	1-136-495-11	FILM	0.068uF	5%	50V

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description		Remark
C513	1-162-286-31	CERAMIC	220PF	10%	50V	D706	8-719-024-99	DIODE	11ES2-NTA2B	
C572	1-124-907-11	ELECT	10uF	20%	50V	D707	8-719-024-99	DIODE	11ES2-NTA2B	
C581	1-124-925-11	ELECT	2.2uF	20%	100V	D708	8-719-024-99	DIODE	11ES2-NTA2B	
C582	1-124-907-11	ELECT	10uF	20%	50V	D709	8-719-987-63	DIODE	IN4148M	
C583	1-124-925-11	ELECT	2.2uF	20%	100V	D710	8-719-987-63	DIODE	IN4148M	
C585	1-162-207-31	CERAMIC	22PF	5%	50V	D711	8-719-024-99	DIODE	11ES2-NTA2B	
C701	1-126-413-11	ELECT	3300uF	20%	35V	D712	8-719-024-99	DIODE	11ES2-NTA2B	
C702	1-126-413-11	ELECT	3300uF	20%	35V	D713	8-719-934-18	DIODE	HZS27-2L	
C705	1-124-563-11	ELECT	2200uF	20%	25V	D714	8-719-014-66	DIODE	UZP-5.6B	
C706	1-124-563-11	ELECT	2200uF	20%	25V	D715	8-719-987-63	DIODE	IN4148M	
C707	1-124-907-11	ELECT	10uF	20%	50V				< GROUND TERMINAL >	
C708	1-124-907-11	ELECT	10uF	20%	50V	EB1	1-537-770-11	TERMINAL BOARD, GROUND		
C709	1-126-941-11	ELECT	470uF	20%	16V	EB2	1-537-770-11	TERMINAL BOARD, GROUND		
C710	1-126-941-11	ELECT	470uF	20%	16V				< FUSE >	
C711	1-124-925-11	ELECT	2.2uF	20%	100V	△F1	1-532-203-00	FUSE (T2.0A 250V)		
C712	1-124-557-11	ELECT	1000uF	20%	25V	△F2	1-532-203-00	FUSE (T2.0A 250V)		
C713	1-124-907-11	ELECT	10uF	20%	50V				< COIL >	
C714	1-124-463-00	ELECT	0.1uF	20%	50V	FB1	1-412-473-21	INDUCTOR	0UH	
C715	1-164-159-11	CERAMIC	0.1uF	20%	50V	FB2	1-412-473-21	INDUCTOR	0UH	
C716	1-124-443-00	ELECT	100uF	20%	10V				< IC >	
C720	1-126-967-11	ELECT	47uF	20%	35V	IC201	8-759-502-32	IC	SI-18752N	
C721	1-124-910-11	ELECT	47uF	20%	50V	IC251	8-759-502-32	IC	SI-18752N	
C722	1-124-907-11	ELECT	10uF	20%	50V	IC281	8-759-634-51	IC	MS218AP	
C723	1-124-910-11	ELECT	47uF	20%	50V	IC300	8-759-168-98	IC	LV1010N	
C724	1-124-478-11	ELECT	100uF	20%	25V	IC301	8-759-248-74	IC	LA2785	
						IC302	8-759-281-42	IC	TC9210P	
						IC303	8-759-000-48	IC	MC14052BCP	
						IC304	8-759-634-51	IC	MS218AP	
						IC401	8-759-111-68	IC	uPC1237HA	
						IC501	8-759-502-32	IC	SI-18752N	
						IC581	8-759-634-51	IC	MS218AP	
						IC701	8-759-701-59	IC	NJM78M09FA	
						IC702	8-759-604-49	IC	M5F7909L	
						IC703	8-759-820-13	IC	L78MR06	
									< JACK >	
						J103	1-770-157-11	JACK, PIN 2P (CENTER OUT)		
									< COIL >	
						L201	1-420-872-00	COIL, AIR-CORE	1.9uH	
						L251	1-420-872-00	COIL, AIR-CORE	1.9uH	
						L301	1-410-509-11	INDUCTOR	10uH	
						L302	1-410-509-11	INDUCTOR	10uH	
						L501	1-420-872-00	COIL, AIR-CORE	1.9uH	

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Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
< IC LINK >											
△PS701	1-532-844-21	LINK, IC	3.15A			R300	1-247-903-00	CARBON	1M	5%	1/4W
△PS702	1-532-844-21	LINK, IC	3.15A			R301	1-249-411-11	CARBON	330	5%	1/4W
						R302	1-249-432-11	CARBON	18K	5%	1/4W
						R303	1-249-417-11	CARBON	1K	5%	1/4W F
< TRANSISTOR >											
Q281	8-729-422-57	TRANSISTOR	UN4111			R304	1-249-417-11	CARBON	1K	5%	1/4W F
Q282	8-729-119-78	TRANSISTOR	2SC2785-HFE			R306	1-249-436-11	CARBON	39K	5%	1/4W
Q301	8-729-422-57	TRANSISTOR	UN4111			R308	1-249-417-11	CARBON	1K	5%	1/4W F
Q302	8-729-119-78	TRANSISTOR	2SC2785-HFE			R309	1-249-417-11	CARBON	1K	5%	1/4W F
Q303	8-729-119-78	TRANSISTOR	2SC2785-HFE			R310	1-249-417-11	CARBON	1K	5%	1/4W F
Q401	8-729-119-76	TRANSISTOR	2SA1175-HFE			R313	1-249-437-11	CARBON	47K	5%	1/4W
Q402	8-729-119-78	TRANSISTOR	2SC2785-HFE			R314	1-249-417-11	CARBON	1K	5%	1/4W F
Q403	8-729-119-78	TRANSISTOR	2SC2785-HFE			R315	1-249-417-11	CARBON	1K	5%	1/4W F
Q581	8-729-422-57	TRANSISTOR	UN4111			R316	1-249-417-11	CARBON	1K	5%	1/4W F
Q582	8-729-119-78	TRANSISTOR	2SC2785-HFE			R317	1-249-437-11	CARBON	47K	5%	1/4W
Q701	8-729-140-04	TRANSISTOR	2SB1116A-L			R321	1-249-423-11	CARBON	3.3K	5%	1/4W F
						R322	1-247-864-11	CARBON	24K	5%	1/4W
						R323	1-249-423-11	CARBON	3.3K	5%	1/4W F
						R324	1-247-864-11	CARBON	24K	5%	1/4W
						R325	1-249-401-11	CARBON	47	5%	1/4W F
< RESISTOR >											
R201	1-249-417-11	CARBON	1K	5%	1/4W F	R361	1-249-423-11	CARBON	3.3K	5%	1/4W F
R202	1-249-433-11	CARBON	22K	5%	1/4W	R362	1-247-864-11	CARBON	24K	5%	1/4W
R203	1-249-417-11	CARBON	1K	5%	1/4W F	R363	1-249-423-11	CARBON	3.3K	5%	1/4W F
R204	1-249-433-11	CARBON	22K	5%	1/4W	R364	1-247-864-11	CARBON	24K	5%	1/4W
R205	1-249-393-11	CARBON	10	5%	1/4W F	R365	1-249-401-11	CARBON	47	5%	1/4W F
R206	1-249-438-11	CARBON	56K	5%	1/4W	R370	1-249-417-11	CARBON	1K	5%	1/4W F
R207	1-249-393-11	CARBON	10	5%	1/4W F	R371	1-249-413-11	CARBON	470	5%	1/4W F
R208	1-249-393-11	CARBON	10	5%	1/4W F	R372	1-249-413-11	CARBON	470	5%	1/4W F
R251	1-249-417-11	CARBON	1K	5%	1/4W F	R373	1-249-441-11	CARBON	100K	5%	1/4W
R252	1-249-433-11	CARBON	22K	5%	1/4W	R374	1-249-427-11	CARBON	6.8K	5%	1/4W F
R253	1-249-417-11	CARBON	1K	5%	1/4W F	R375	1-249-427-11	CARBON	6.8K	5%	1/4W F
R254	1-249-433-11	CARBON	22K	5%	1/4W	R376	1-249-441-11	CARBON	100K	5%	1/4W
R255	1-249-393-11	CARBON	10	5%	1/4W F	R377	1-249-417-11	CARBON	1K	5%	1/4W F
R256	1-249-437-11	CARBON	47K	5%	1/4W	R378	1-249-417-11	CARBON	1K	5%	1/4W F
R257	1-249-393-11	CARBON	10	5%	1/4W F	R381	1-249-417-11	CARBON	1K	5%	1/4W F
R258	1-249-393-11	CARBON	10	5%	1/4W F	R382	1-249-417-11	CARBON	1K	5%	1/4W F
R271	1-249-429-11	CARBON	10K	5%	1/4W	R401	1-249-441-11	CARBON	100K	5%	1/4W
R272	1-249-429-11	CARBON	10K	5%	1/4W	R402	1-249-435-11	CARBON	33K	5%	1/4W
R273	1-249-429-11	CARBON	10K	5%	1/4W	R403	1-249-430-11	CARBON	12K	5%	1/4W
R274	1-249-429-11	CARBON	10K	5%	1/4W	R404	1-249-429-11	CARBON	10K	5%	1/4W
R275	1-249-437-11	CARBON	47K	5%	1/4W	R405	1-249-433-11	CARBON	22K	5%	1/4W
R280	1-249-417-11	CARBON	1K	5%	1/4W F	△R406	1-216-453-00	METAL OXIDE	270	5%	2W F
R282	1-249-427-11	CARBON	6.8K	5%	1/4W F	R407	1-249-423-11	CARBON	3.3K	5%	1/4W F
R283	1-249-441-11	CARBON	100K	5%	1/4W	R408	1-249-421-11	CARBON	2.2K	5%	1/4W F
R284	1-249-429-11	CARBON	10K	5%	1/4W	R409	1-249-423-11	CARBON	3.3K	5%	1/4W F
R285	1-249-433-11	CARBON	22K	5%	1/4W	R410	1-249-421-11	CARBON	2.2K	5%	1/4W F
R286	1-249-437-11	CARBON	47K	5%	1/4W	R411	1-249-417-11	CARBON	1K	5%	1/4W F
R287	1-249-427-11	CARBON	6.8K	5%	1/4W F	△R412	1-216-453-00	METAL OXIDE	270	5%	2W F
R288	1-249-441-11	CARBON	100K	5%	1/4W	R501	1-249-417-11	CARBON	1K	5%	1/4W F
R289	1-249-441-11	CARBON	100K	5%	1/4W	R502	1-249-433-11	CARBON	22K	5%	1/4W
R290	1-249-417-11	CARBON	1K	5%	1/4W F	R503	1-249-417-11	CARBON	1K	5%	1/4W F

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MAIN PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
R504	1-249-433-11	CARBON	22K 5%	1/4W	*	A-4377-258-A	PANEL BOARD, COMPLETE	
R505	1-249-393-11	CARBON	10 5%	1/4W F		*****	*****	
R506	1-249-435-11	CARBON	33K 5%	1/4W	*	4-949-935-01	CUSHION (FL)	
R507	1-249-393-11	CARBON	10 5%	1/4W F	*	4-971-122-01	HOLDER, FL TUBE	
R508	1-249-393-11	CARBON	10 5%	1/4W F			< CAPACITOR >	
R571	1-249-426-11	CARBON	5.6K 5%	1/4W	C620	1-161-494-00	CERAMIC	0.022uF 25V
R572	1-249-441-11	CARBON	100K 5%	1/4W	C621	1-161-494-00	CERAMIC	0.022uF 25V
R573	1-249-429-11	CARBON	10K 5%	1/4W	C630	1-164-159-11	CERAMIC	0.1uF 50V
R574	1-249-429-11	CARBON	10K 5%	1/4W	C640	1-104-905-11	DOUBLE LAYERS	0.22F 5.5V
R575	1-249-437-11	CARBON	47K 5%	1/4W	C641	1-164-159-11	CERAMIC	0.1uF 50V
R580	1-249-417-11	CARBON	1K 5%	1/4W F	C642	1-124-584-00	ELECT	100uF 20% 10V
R581	1-249-417-11	CARBON	1K 5%	1/4W F	C643	1-104-664-11	ELECT	47uF 20% 10V
R582	1-249-427-11	CARBON	6.8K 5%	1/4W F	C680	1-162-306-11	CERAMIC	0.01uF 30% 16V
R583	1-249-441-11	CARBON	100K 5%	1/4W	C681	1-162-286-31	CERAMIC	220PF 10% 50V
R584	1-249-429-11	CARBON	10K 5%	1/4W			< CONNECTOR >	
R585	1-249-433-11	CARBON	22K 5%	1/4W	* CN601	1-568-834-11	SOCKET, CONNECTOR 15P	
R586	1-249-437-11	CARBON	47K 5%	1/4W	* CN602	1-568-832-11	SOCKET, CONNECTOR 13P	
R587	1-249-427-11	CARBON	6.8K 5%	1/4W F			< DIODE >	
R590	1-249-441-11	CARBON	100K 5%	1/4W	D601	8-719-038-63	DIODE	SEL5220S-TH8F (CENTER SPEAKER)
R591	1-249-441-11	CARBON	100K 5%	1/4W	D602	8-719-038-63	DIODE	SEL5220S-TH8F (REAR SPEAKER)
R701	1-249-431-11	CARBON	15K 5%	1/4W	D611	8-719-987-63	DIODE	IN4148M
R702	1-249-431-11	CARBON	15K 5%	1/4W	D613	8-719-987-63	DIODE	IN4148M
R703	1-260-083-11	CARBON	47 5%	1/2W	D640	8-719-987-63	DIODE	IN4148M
R704	1-249-425-11	CARBON	4.7K 5%	1/4W F	D641	8-719-987-63	DIODE	IN4148M
R705	1-249-437-11	CARBON	47K 5%	1/4W			< FLUORESCENT INDICATOR >	
R706	1-249-429-11	CARBON	10K 5%	1/4W	FL601	1-517-399-11	INDICATOR TUBE, FLUORESCENT	
							< IC >	
RY1	1-755-018-11	RELAY			IC601	8-759-343-99	IC	TMP87C814N-1147
RY401	1-515-921-11	RELAY (12V)					< COIL >	
RY402	1-515-921-11	RELAY (12V)			L601	1-410-517-11	INDUCTOR	47uH
					L602	1-410-509-11	MICRO INDUCTOR	10uH
							< TRANSISTOR >	
					Q601	8-729-900-63	TRANSISTOR	DTA124ES
					Q602	8-729-900-63	TRANSISTOR	DTA124ES
					Q611	8-729-119-78	TRANSISTOR	ZSC2785-HFE
					Q612	8-729-119-78	TRANSISTOR	ZSC2785-HFE
							< RESISTOR >	
X301	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			R601	1-249-409-11	CARBON	220 5% 1/4W F
					R602	1-249-409-11	CARBON	220 5% 1/4W F
					R603	1-249-417-11	CARBON	1K 5% 1/4W F
					R604	1-247-807-31	CARBON	100 5% 1/4W F

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PANEL **VIDEO**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R605	1-249-411-11	CARBON	330 5% 1/4W			*****	*****
R606	1-249-413-11	CARBON	470 5% 1/4W F	*	1-655-017-11	VIDEO BOARD	*****
R607	1-249-417-11	CARBON	1K 5% 1/4W F				
R608	1-249-417-11	CARBON	1K 5% 1/4W F				
R609	1-247-807-31	CARBON	100 5% 1/4W				< CAPACITOR >
R610	1-249-411-11	CARBON	330 5% 1/4W				
R611	1-249-413-11	CARBON	470 5% 1/4W F	C801	1-124-903-11	ELECT	1uF 20% 50V
R612	1-249-417-11	CARBON	1K 5% 1/4W F	C802	1-124-903-11	ELECT	1uF 20% 50V
R613	1-249-423-11	CARBON	3.3K 5% 1/4W F	C804	1-124-471-00	ELECT	1000uF 20% 6.3V
R620	1-249-417-11	CARBON	1K 5% 1/4W F	C805	1-124-471-00	ELECT	1000uF 20% 6.3V
R621	1-249-417-11	CARBON	1K 5% 1/4W F	C806	1-124-471-00	ELECT	1000uF 20% 6.3V
R622	1-249-433-11	CARBON	22K 5% 1/4W	C807	1-164-159-11	CERAMIC	0.1uF 50V
R623	1-249-433-11	CARBON	22K 5% 1/4W	C808	1-126-233-11	ELECT	22uF 20% 50V
R624	1-249-429-11	CARBON	10K 5% 1/4W				< CONNECTOR >
R630	1-249-433-11	CARBON	22K 5% 1/4W				
R632	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R633	1-249-429-11	CARBON	10K 5% 1/4W				< IC >
R634	1-249-417-11	CARBON	1K 5% 1/4W F	IC801	8-759-061-95	IC SN761200N	
R650	1-247-807-31	CARBON	100 5% 1/4W				
R661	1-247-807-31	CARBON	100 5% 1/4W				< JACK >
R662	1-247-807-31	CARBON	100 5% 1/4W				
R663	1-247-807-31	CARBON	100 5% 1/4W	J801	1-695-317-21	JACK, PIN 2P (VIDEO1 IN/OUT)	
R664	1-247-807-31	CARBON	100 5% 1/4W	J802	1-766-748-11	JACK 3P (VIDEO2 IN/OUT, MONITOR OUT)	
R665	1-247-807-31	CARBON	100 5% 1/4W				< COIL >
R666	1-247-807-31	CARBON	100 5% 1/4W				
R667	1-247-807-31	CARBON	100 5% 1/4W	L801	1-410-521-11	INDUCTOR	100uH
R668	1-247-807-31	CARBON	100 5% 1/4W				< TRANSISTOR >
R669	1-247-807-31	CARBON	100 5% 1/4W				
R670	1-247-807-31	CARBON	100 5% 1/4W	Q801	8-729-119-76	TRANSISTOR 2SA1175-HFE	
R671	1-247-807-31	CARBON	100 5% 1/4W	Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE	
R680	1-249-406-11	CARBON	120 5% 1/4W F	Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE	
R681	1-247-903-00	CARBON	1M 5% 1/4W				< RESISTOR >
R682	1-249-421-11	CARBON	2.2K 5% 1/4W F				
			< SWITCH >				
S601	1-554-303-21	SWITCH, TACTILE (VIDEO 1/2)		R801	1-247-804-11	CARBON	75 5% 1/4W
S602	1-554-303-21	SWITCH, TACTILE (HALL)		R802	1-247-804-11	CARBON	75 5% 1/4W
S603	1-554-303-21	SWITCH, TACTILE (DELAY TIME -)		R804	1-249-403-11	CARBON	68 5% 1/4W F
S604	1-554-303-21	SWITCH, TACTILE (CENTER LEVEL -)		R805	1-249-429-11	CARBON	10K 5% 1/4W
S605	1-554-303-21	SWITCH, TACTILE (REAR LEVEL -)		R806	1-249-403-11	CARBON	68 5% 1/4W F
S606	1-554-303-21	SWITCH, TACTILE (SURROUND OFF)		R807	1-249-429-11	CARBON	10K 5% 1/4W
S607	1-554-303-21	SWITCH, TACTILE (DOLBY PRO-LOGIC)		R808	1-249-403-11	CARBON	68 5% 1/4W F
S608	1-554-303-21	SWITCH, TACTILE (MODE)		R809	1-249-429-11	CARBON	10K 5% 1/4W
S609	1-554-303-21	SWITCH, TACTILE (DELAY TIME +)		R810	1-249-408-11	CARBON	180 5% 1/4W F
S610	1-554-303-21	SWITCH, TACTILE (CENTER LEVEL +)		R811	1-249-408-11	CARBON	180 5% 1/4W F
S611	1-554-303-21	SWITCH, TACTILE (REAR LEVEL +)		R812	1-249-408-11	CARBON	180 5% 1/4W F
			< VIBRATOR >	R813	1-249-408-11	CARBON	180 5% 1/4W F
X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)		R814	1-249-408-11	CARBON	180 5% 1/4W F
				R815	1-249-408-11	CARBON	180 5% 1/4W F
				R816	1-249-417-11	CARBON	1K 5% 1/4W F
				R817	1-249-417-11	CARBON	1K 5% 1/4W F
				R818	1-249-417-11	CARBON	1K 5% 1/4W F

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>

MISCELLANEOUS			

4	1-590-036-11	WIRE, FLAT TYPE (13 CORE)	
5	1-690-094-11	WIRE, FLAT TYPE (15 CORE)	
△7	1-575-651-71	CORD, POWER (AEP,EE,CIS)	
△7	1-590-379-11	CORD, POWER (UK)	
△7	1-775-304-11	CORD, POWER (E)	
△7	1-775-305-11	CORD, POWER (AUS)	
△F1	1-532-203-00	FUSE (T2.0A 250V)	
△F2	1-532-203-00	FUSE (T2.0A 250V)	
FL601	1-517-399-11	INDICATOR TUBE, FLUORESCENT	
IC201	8-759-502-32	IC SI-18752N	
IC251	8-759-502-32	IC SI-18752N	
IC501	8-759-502-32	IC SI-18752N	
△T901	1-427-781-11	TRANSFORMER, POWER (AEP, UK, EE, CIS)	
△T901	1-429-099-11	TRANSFORMER, POWER (E, AUS)	

ACCESSORIES & PACKING MATERIALS			

*	4-973-307-01	CUSHION (UPPER)	
*	4-973-650-01	CUSHION (LOWER)	

HARDWARE LIST			

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
#3	7-682-560-04	SCREW +BVTT 4X6 (S)	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

TAN-N500/N600

SERVICE MANUAL



Photo: TAN-N600

TAN-N500/N600 are the Amplifier Section in
LBT-N500/N550/550K/550P and LBT-N600AV/N650AV.

AEP Model
UK Model

E Model

Australian Model

TAN-N500/N600

PX Model

TAN-N500

SPECIFICATIONS

DIN power output

40 W +40 W (6 ohms,
at 1 kHz)

Continuous RMS power output

50 W + 50 W (6 ohms,
at 1 kHz, 5% THD)

Music power output

100 W + 100 W (6 ohms,
at 1 kHz, 10% THD)

Frequency response

15 Hz to 50 kHz ± 0 dB

Power requirements

European models:

220–230 V AC, 50/60 Hz

Australian model:

220–240 V AC, 50/60 Hz

Malaysian model:

220–240 V AC, 50/60 Hz

Mexican model:

120 V AC, 50/60 Hz

Other models:

110–120 V or 220–240 V AC
adjustable, 50/60 Hz

Power consumption

European models:

135 W

Other models:

195 W

Output	Jack type	Impedance
SURROUND	-	Accepts speakers up to 16 ohms
SPEAKER (NS00)		
PHONES	Stereophone	Accepts headphones of 8 ohms or more

Weight Approx. 5.4 kg

Dimensions

Approx. 355 x 130 x 335 mm
(w/h/d, including projections)

Design and specifications are subject to
change without notice.



MICROFILM

STEREO POWER AMPLIFIER
SONY®

SECTION 1 GENERAL

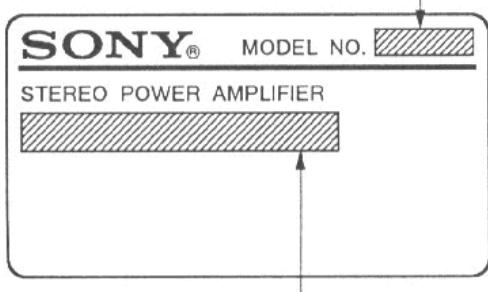
TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
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1. GENERAL		
1-1. Index to Parts and Controls	2	
2. DISASSEMBLY	3	
3. DIAGRAMS		
3-1. Circuit Boards Location	4	
3-2. Schematic Diagram	6	
3-3. Printed Wiring Boards	9	
4. EXPLODED VIEWS	15	
5. ELECTRICAL PARTS LIST	18	

MODEL IDENTIFICATION

— Specification Label Printed on Back Panel —

TAN-N500/N600



AEP, German, Italian, East European,

CIS model : AC: 220 V-230 V ~50/60 Hz 135 W

UK model : AC: 220 V-230 V ~50 Hz

Australian,

Malaysia model : AC: 220 V-240 V ~50/60 Hz 195 W

E, Saudi Arabia, Singapore,

PX model: AC: 110 V-120 V/220 V-240 V
~50/60 Hz 195 W

Mexican model: AC: 120 V ~60 Hz 195 W

SAFETY-RELATED COMPONENT WARNING!!

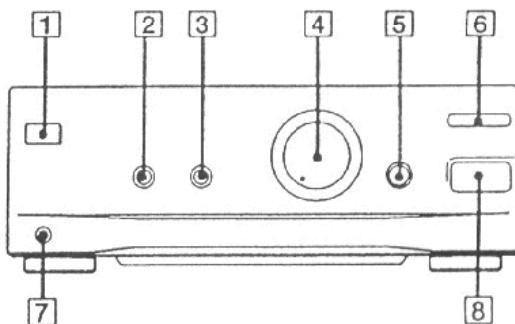
COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

This section is extracted from instruction manual.

1-1. INDEX TO PARTS AND CONTROLS

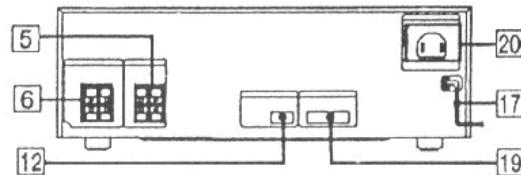
Front Panel

Power Amplifier (TAN-N500/N600)



- [1] SYSTEM POWER switch
- [2] SURROUND button (N500)
- [2] S-SURROUND button (N600)
- [3] DBFB button
- [4] VOLUME control (N500)
- [4] MASTER VOLUME control (N600)
- [5] BALANCE control
- [6] SLEEP button
- [7] PHONES jack
- [8] FUNCTION button

Rear Panel



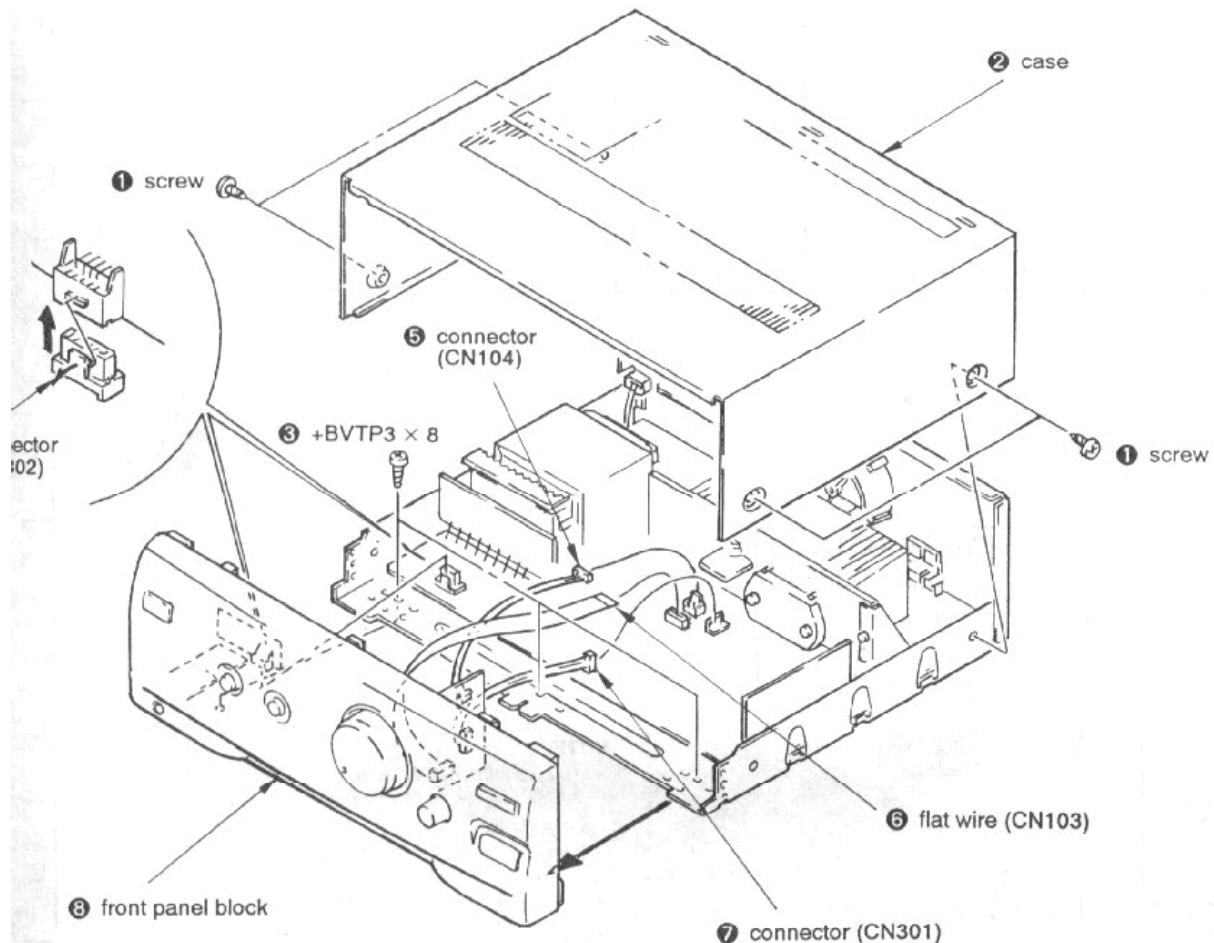
- [5] SPEAKER connectors
- [6] SURROUND SPEAKER connectors (N500)
- [12] SYSTEM CONTROL 4 terminals (N600)
- [17] AC power cord
- [19] SYSTEM CONTROL 2 terminals
- [20] AC OUTLET (N600)

SECTION 2

DISASSEMBLY

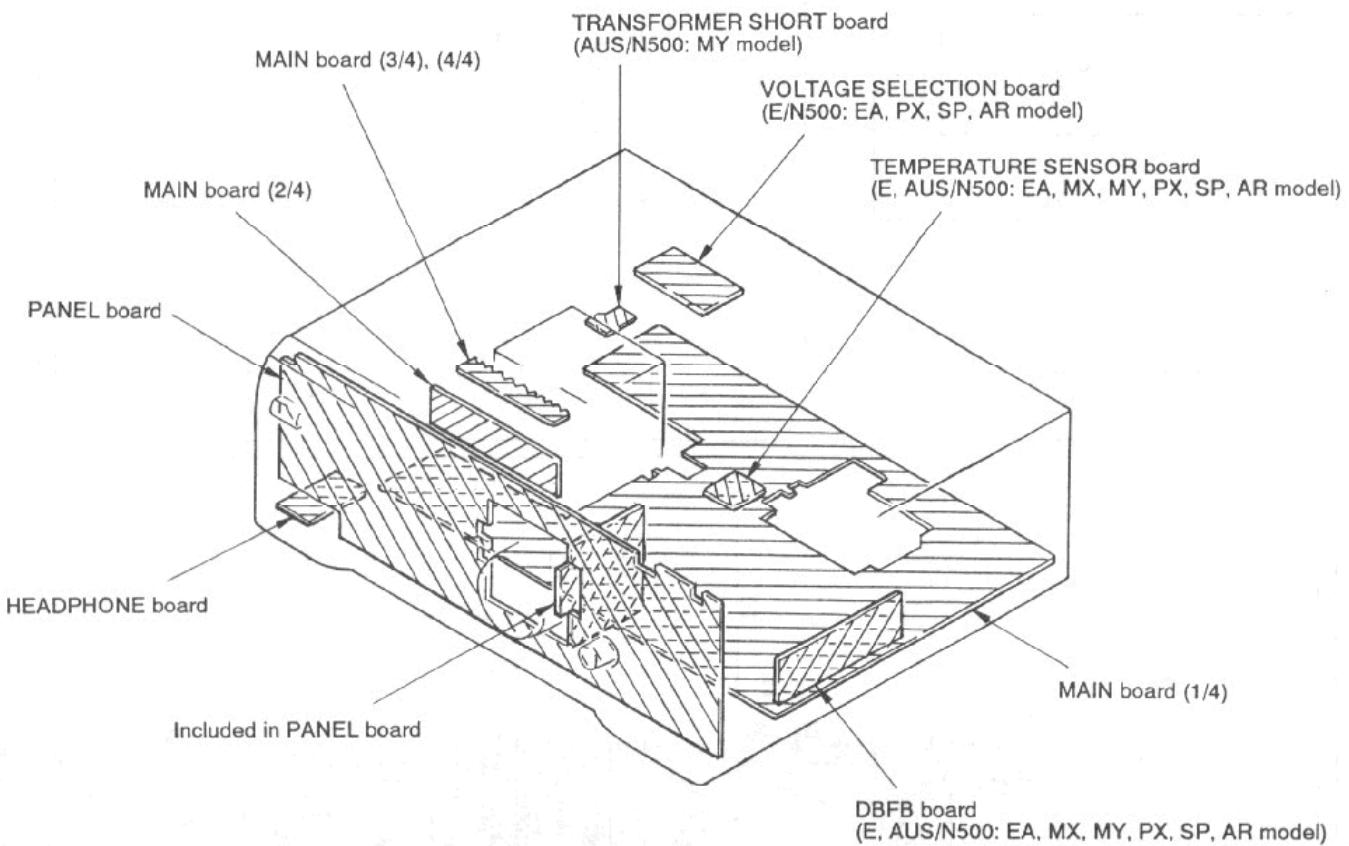
Follow the disassembly procedure in the numerical order given.

EL ASS'Y



SECTION 3 DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

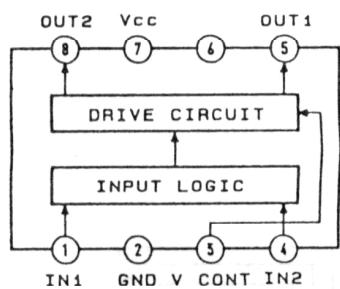


- Abbreviation
 - EA : Saudi Arabia model
 - MX : Mexican model
 - SP : Singapore model
 - MY : Malaysia model
 - AUS : Australian model
 - AR : Argentine model

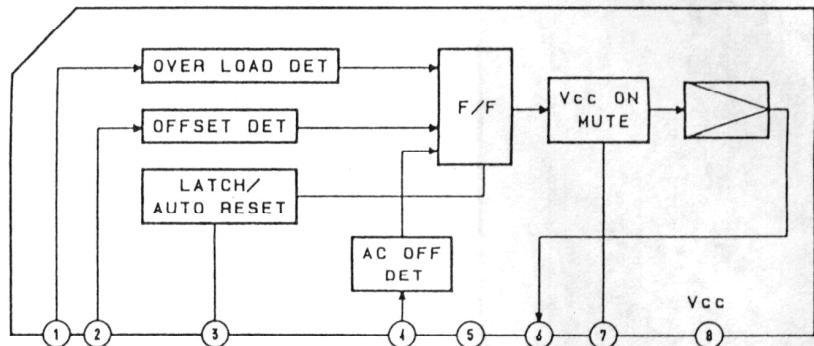
TAN-N500/N600

- IC Block Diagrams

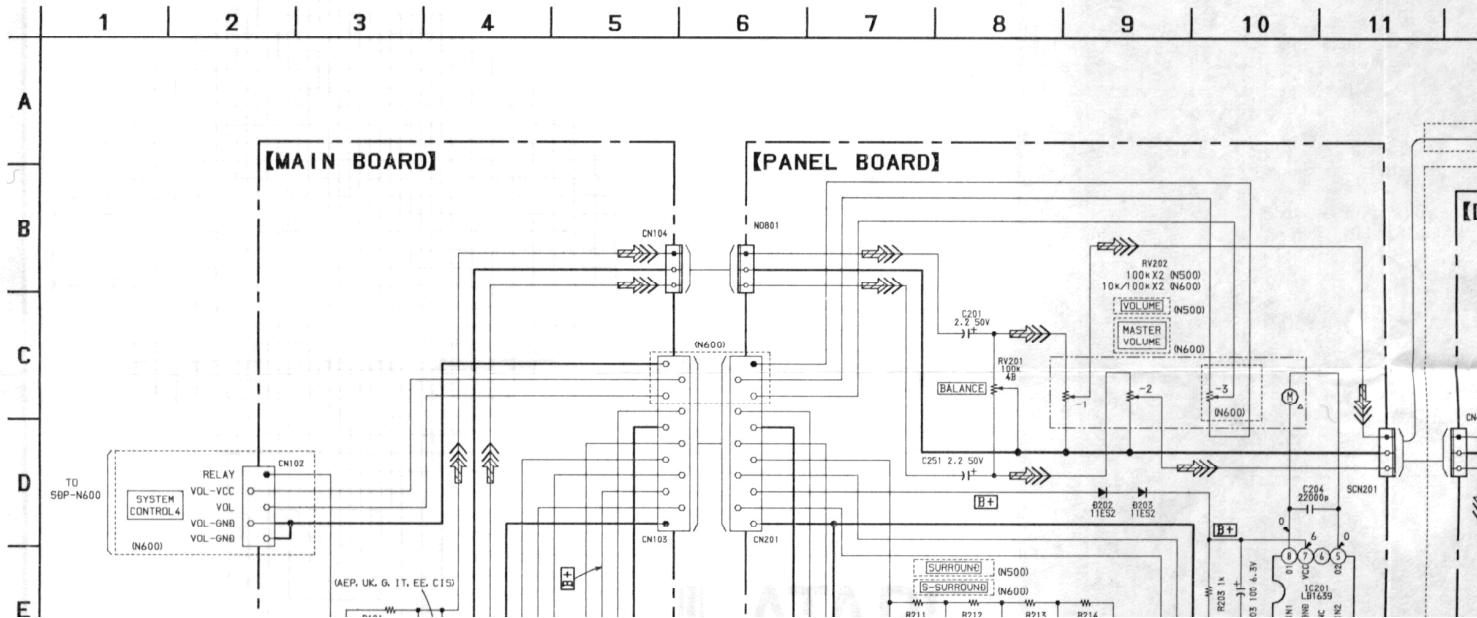
IC201 LB1639

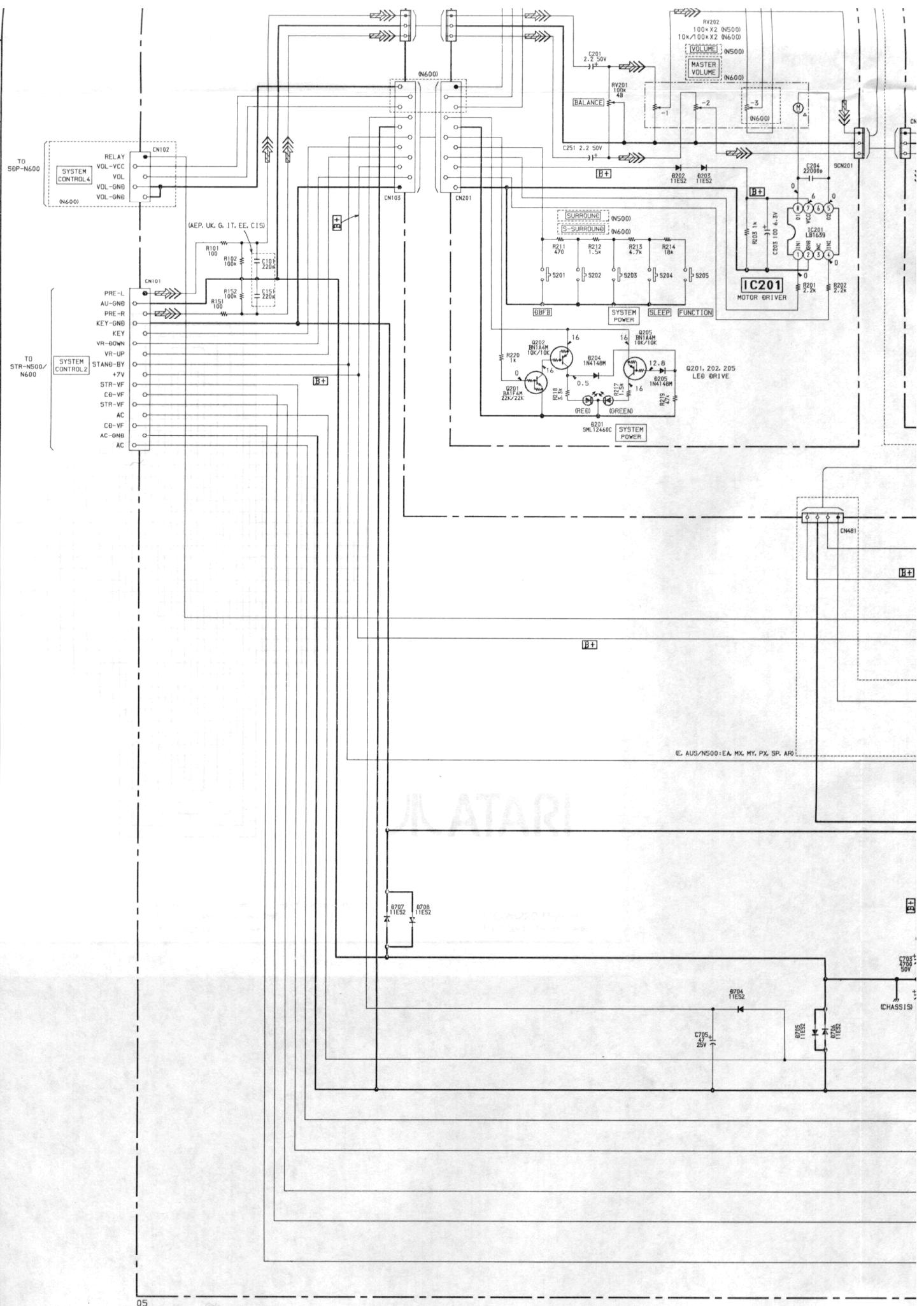


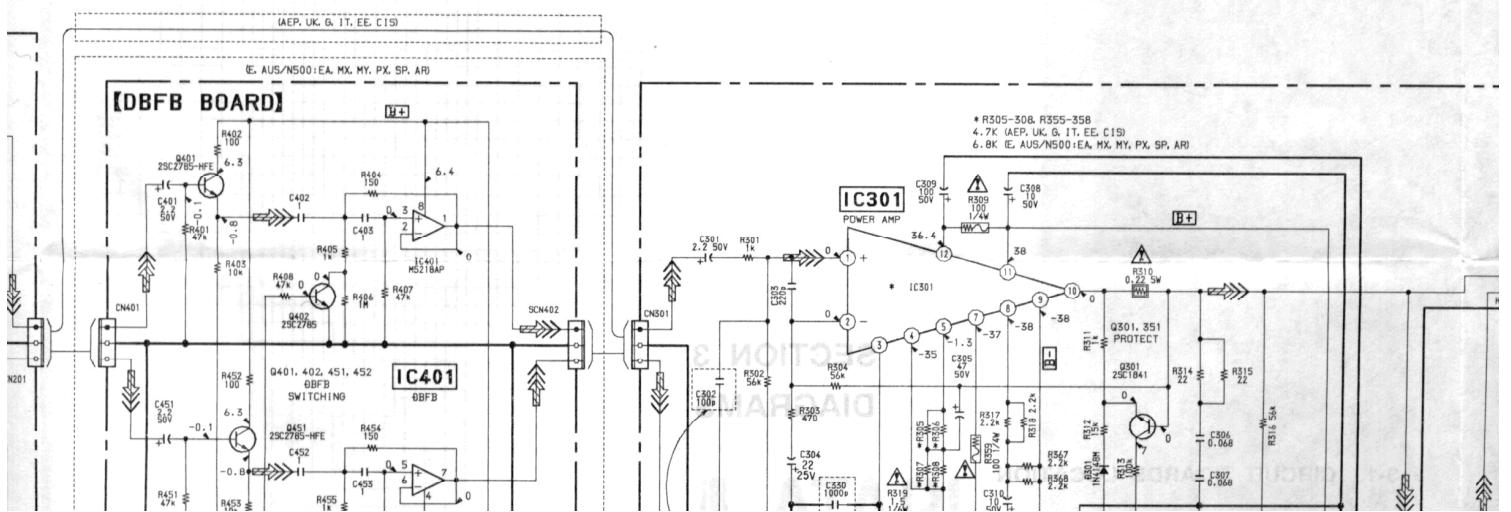
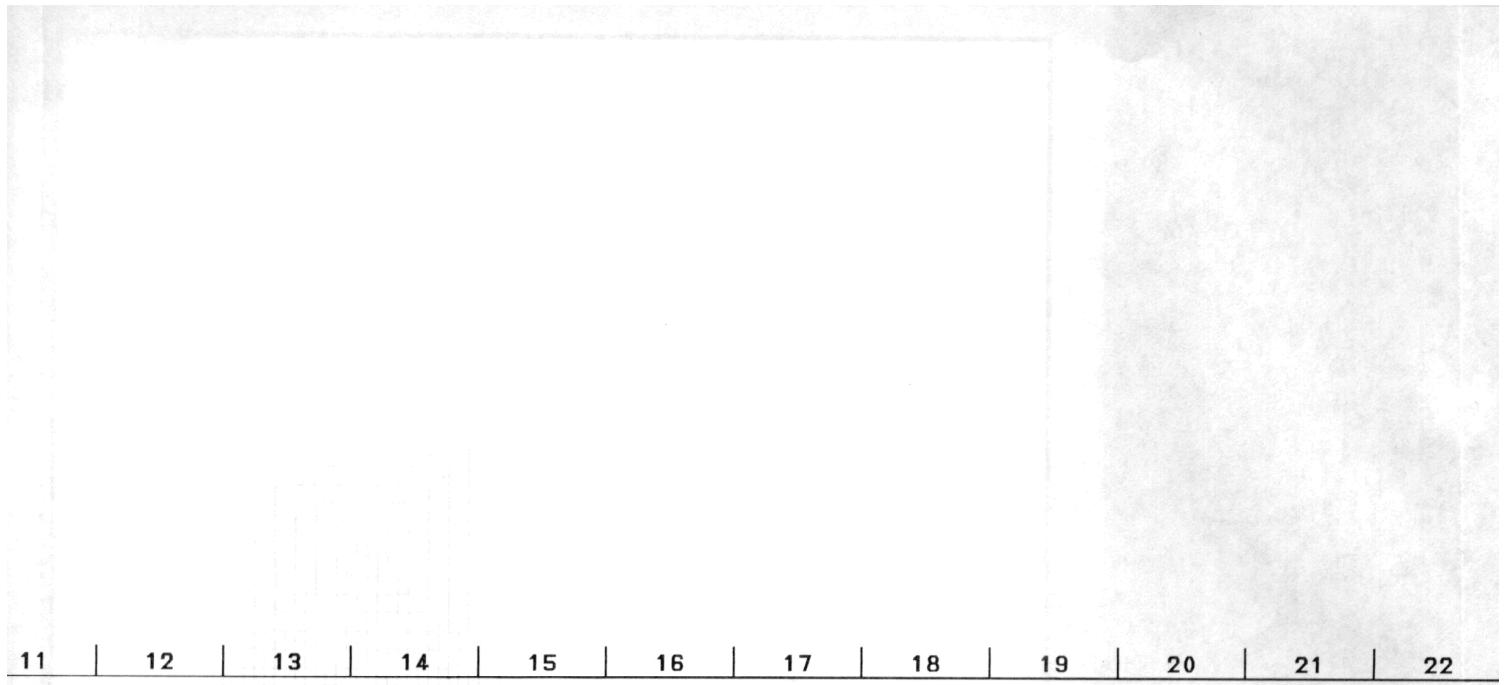
IC501 μ PC1237HA

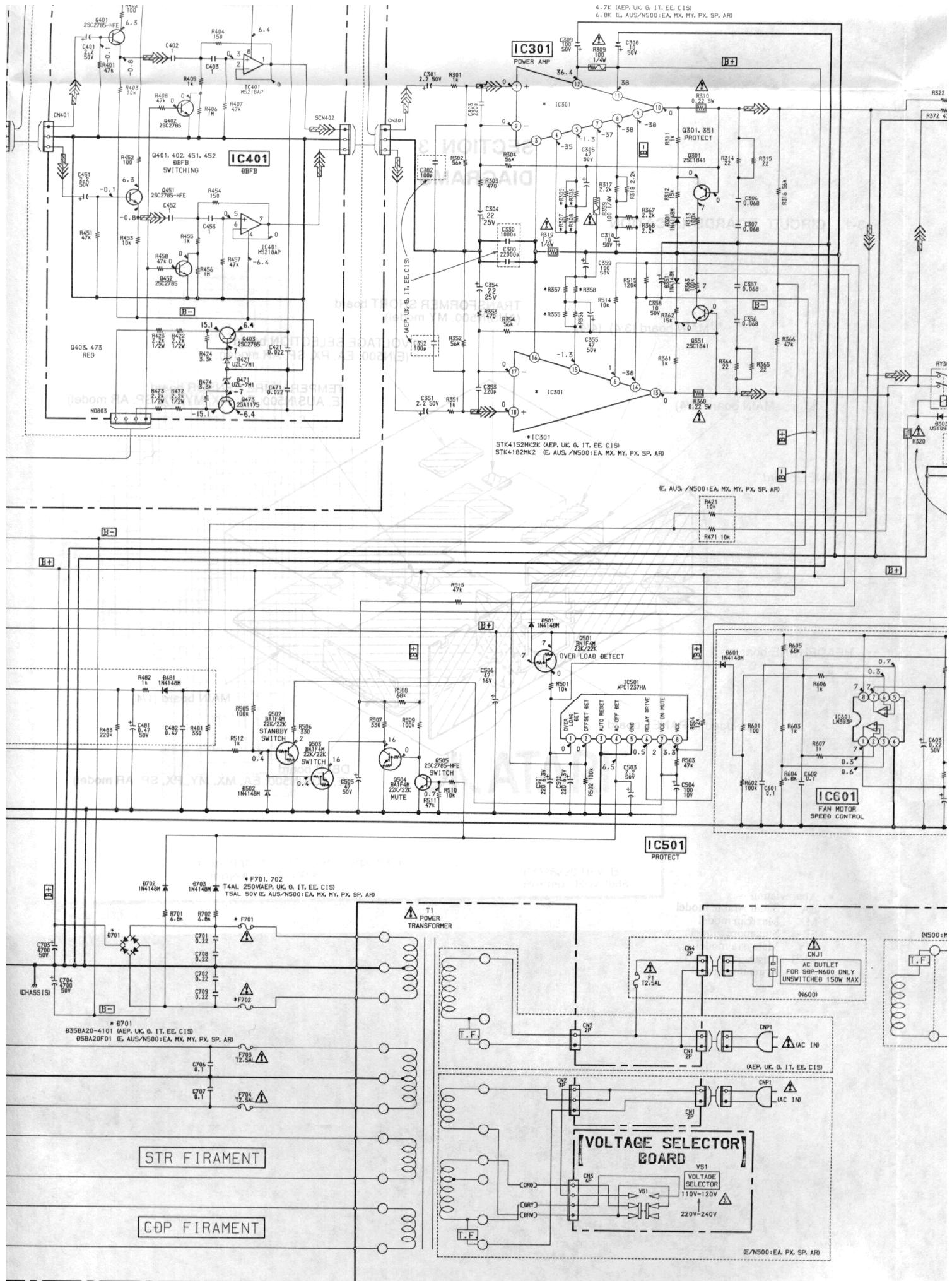


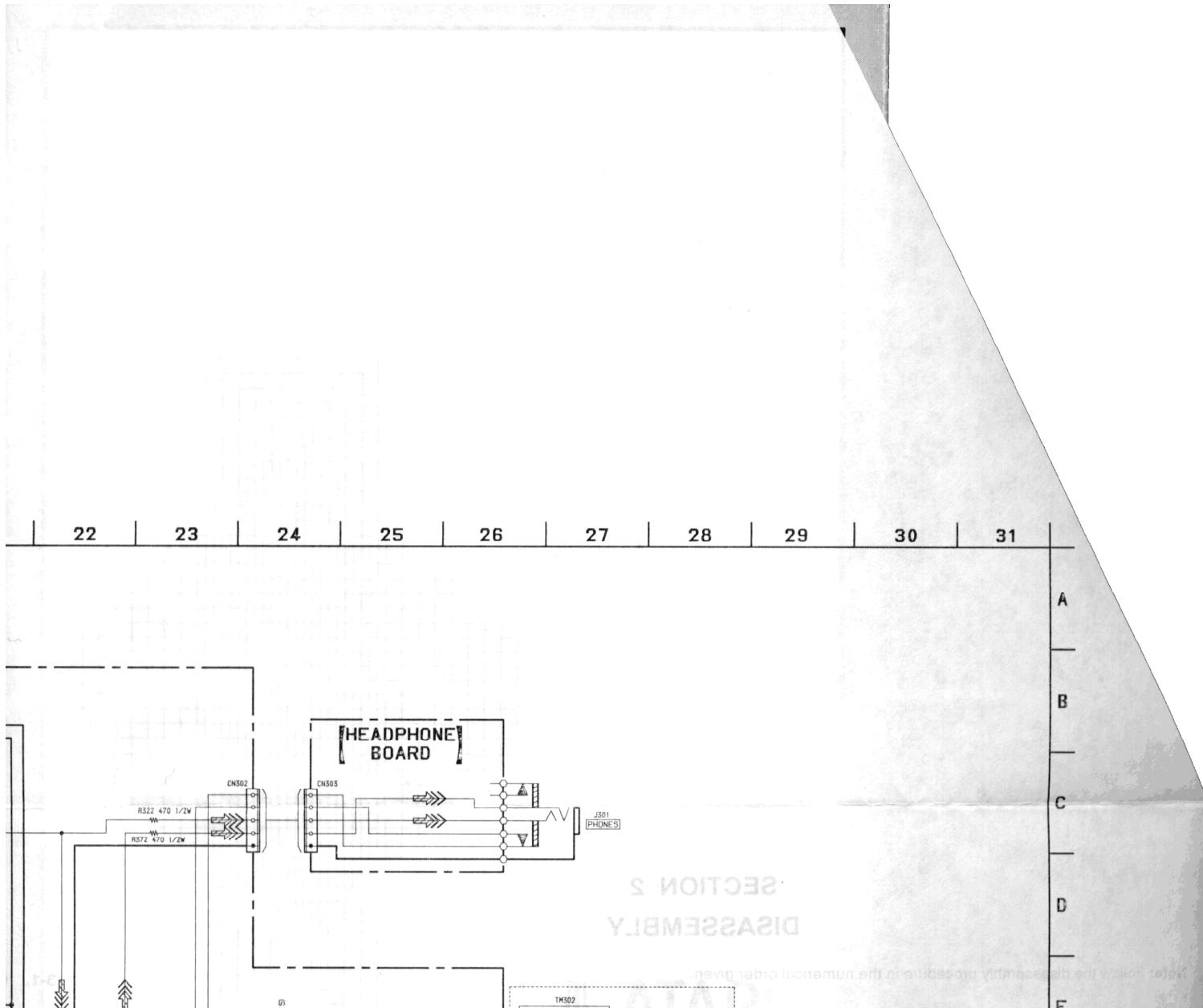
3-2. SCHEMATIC DIAGRAM

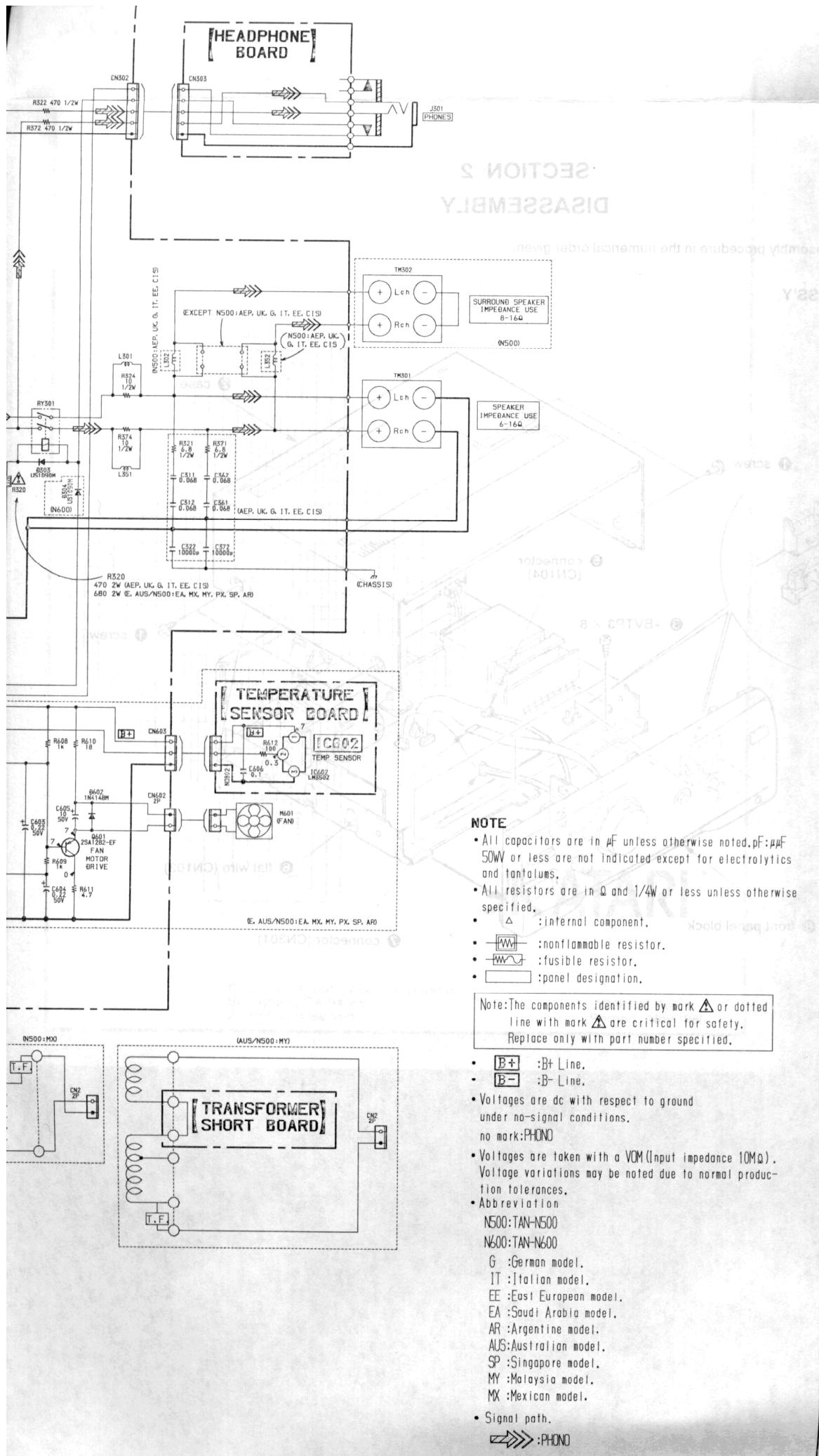












NOTE

- All capacitors are in μF unless otherwise noted, pF: $\mu\mu F$
50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
-  internal component.
-  nonflammable resistor.
-  fusible resistor.
-  panel designation.

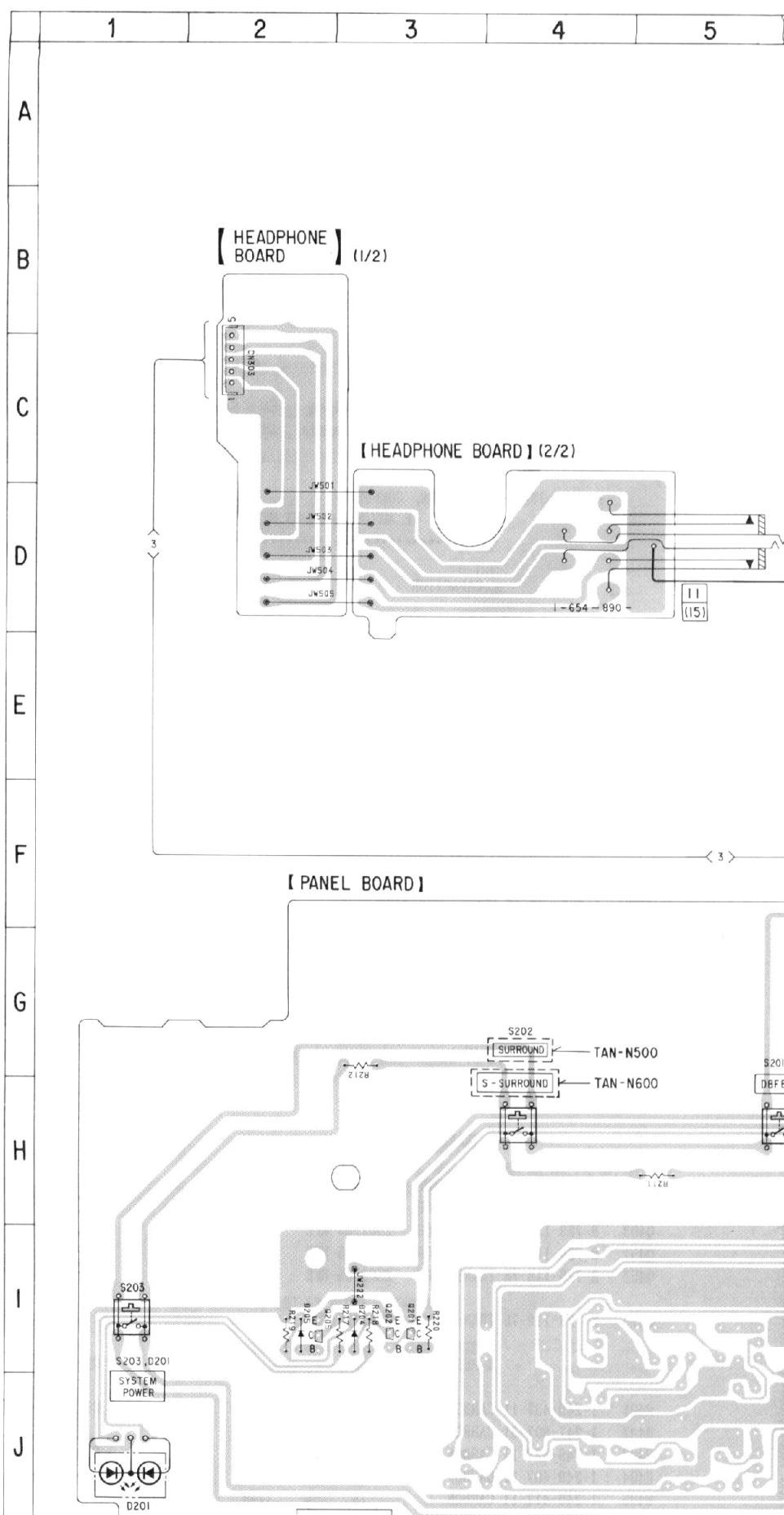
Note: The components identified by mark  or dotted line with mark are critical for safety.
Replace only with part number specified.

- **B+** :B+ Line.
- **B-** :B- Line.
- Voltages are dc with respect to ground under no-signal conditions.
no mark:PHONO
- Voltages are taken with a VOM (Input impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.
- Abbreviation
 - N500:TAN-N500
 - N600:TAN-N600
 - G :German model.
 - IT :Italian model.
 - EE :East European model.
 - EA :Saudi Arabia model.
 - AR :Argentine model.
 - AUS:Australian model.
 - SP :Singapore model.
 - MY :Malaysia model.
 - MX :Mexican model.
- Signal path.
:PHONO

3-3. PRINTED WIRING BOARDS

• Semiconductor Location

Ref. No.	Location
D201	J-1
D202	H-8
D203	H-8
D204	I-3
D205	I-2
D301	G-20
D303	G-16
△ D304	B-22
D351	G-18
○ D421	C-9
○ D471	C-9
○ D481	H-18
○ D501	H-18
D502	J-16
○ D601	J-19
○ D602	B-22
D701	I-23
D702	J-27
D703	J-27
D704	G-23
D705	G-23
D706	H-23
D707	H-22
D708	G-22
IC201	H-7
IC301	F-19
○ IC401	C-9
IC501	H-16
○ IC601	I-19
○ IC602	D-19
Q201	I-3
Q202	I-3
Q205	I-2
Q301	G-20
Q351	G-17
○ Q401	D-8
○ Q402	D-9
○ Q451	B-8
○ Q452	B-9
Q501	I-17
Q502	I-16
Q503	I-16
Q504	I-16
Q505	I-16
○ Q601	I-20



Note:

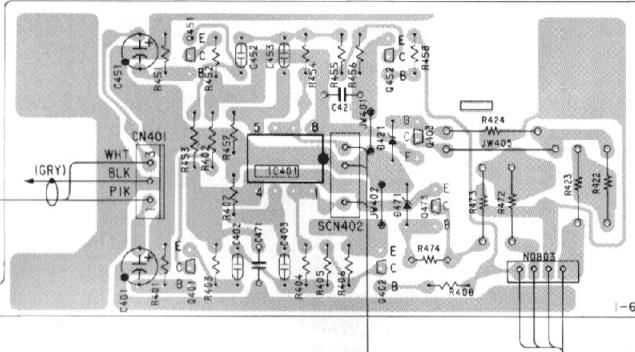
- : E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL
- △ : N600

Note:

- — : parts extracted from the component side.
- △ : internal component.
- ■■■■■ : Pattern from the side which enables seeing.
- Abbreviations
 - G : German model
 - IT : Italian model
 - EA : Saudi Arabia model
 - EE : East European model
 - MX : Mexican model
 - SP : Singapore model
 - MY : Malaysia model
 - AUS : Australian model
 - AR : Argentine model

TAN-N500/N600: E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL

[DBFB BOARD]



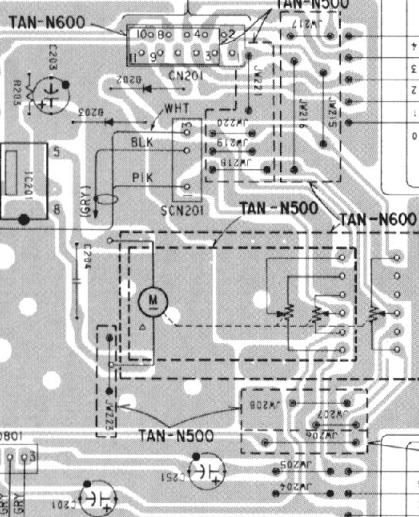
I-656-920
(16)

J301
PHONES

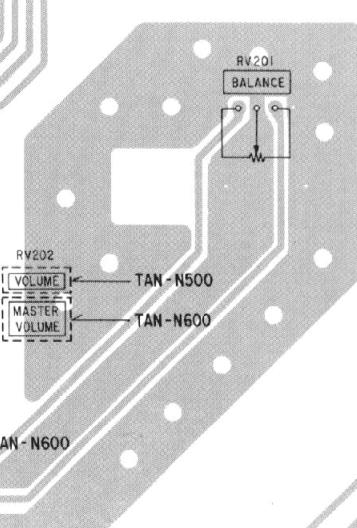
TAN-N500/N600:
AEP, UK, G, IT, EE, CIS MODEL

< 2-3 >

Included in PANEL BOARD



TAN-N500
TAN-N600
TAN-N500
TAN-N600



S205
FUNCTION

S204
SLEEP

I-654-893-

14

15

16

17

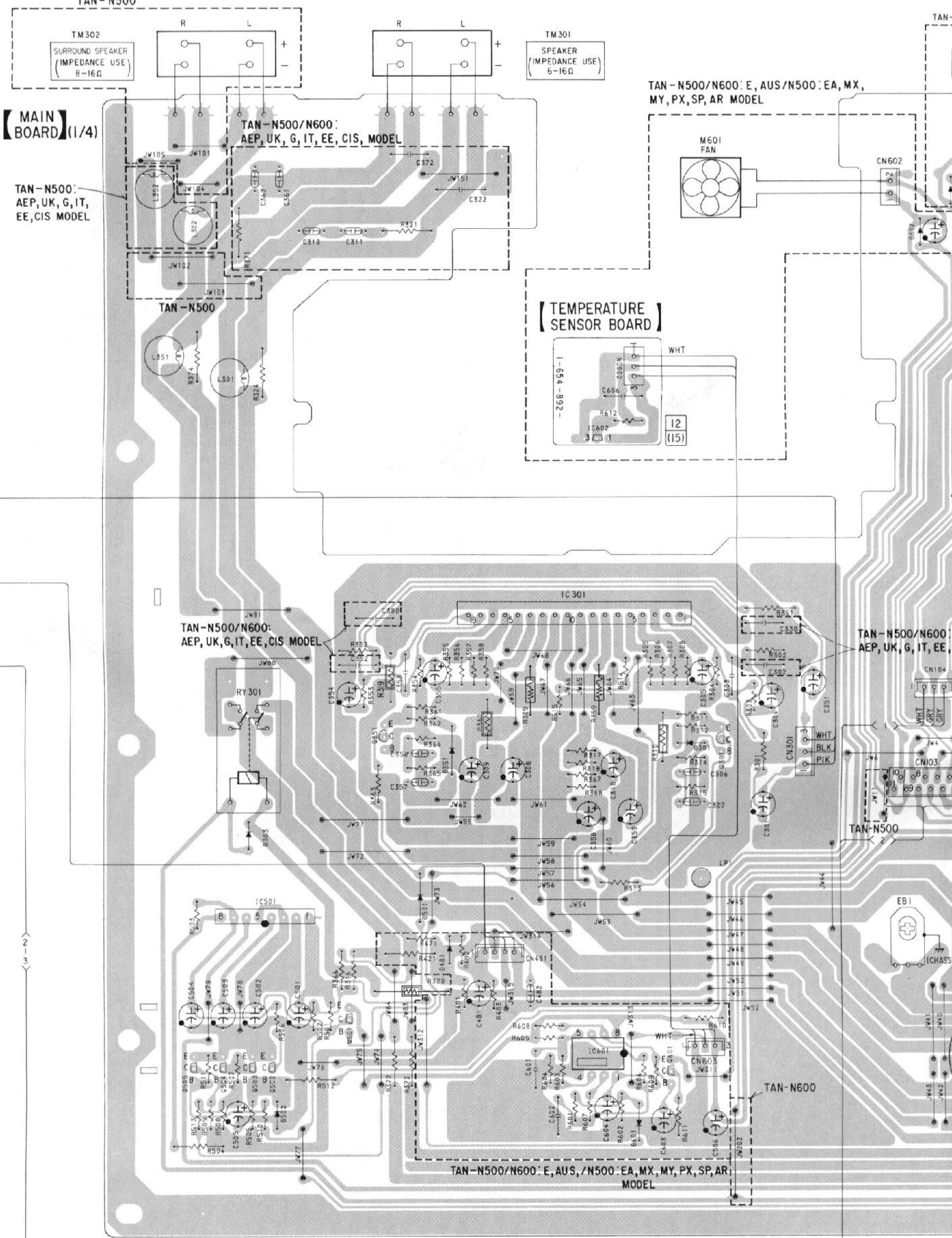
18

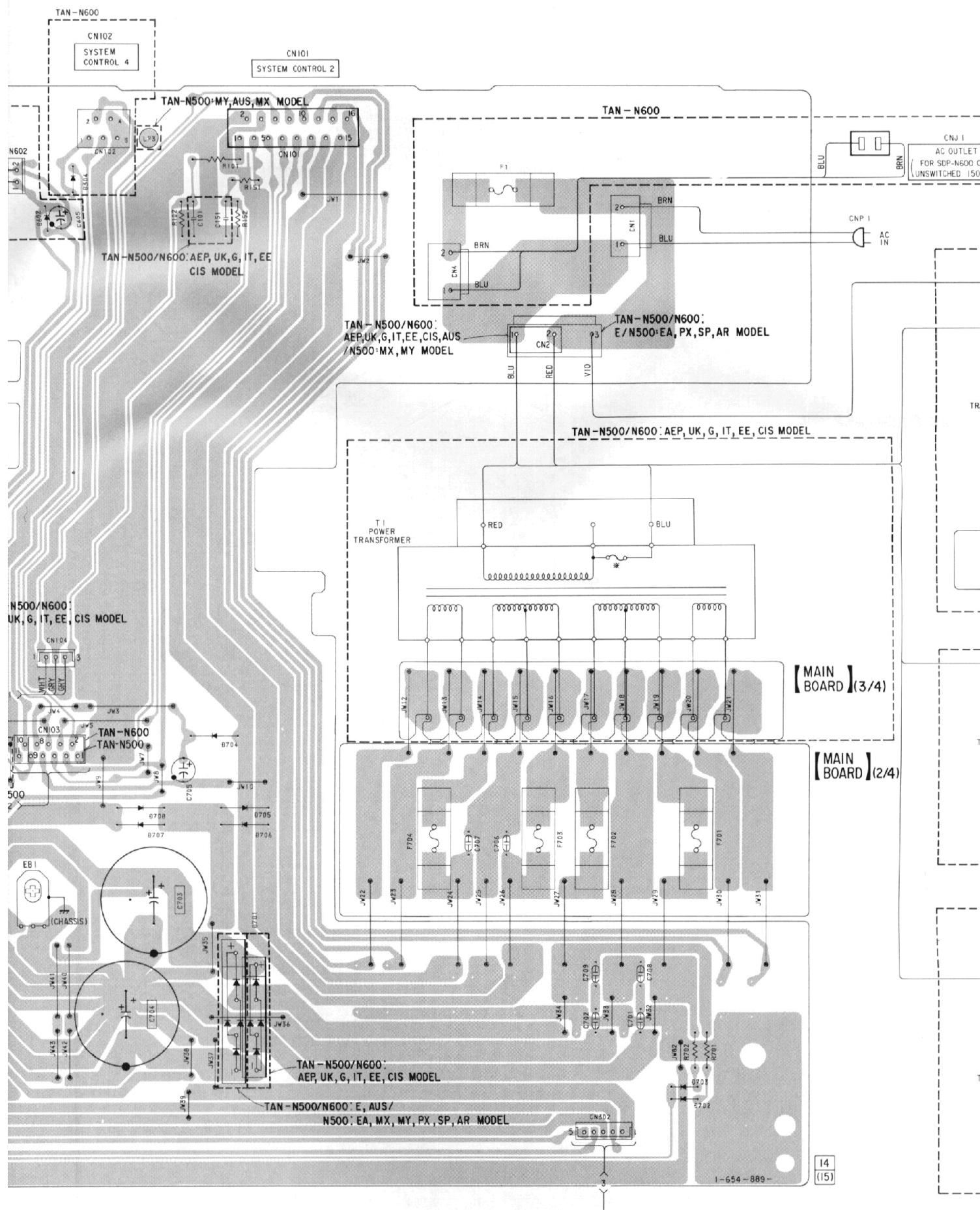
19

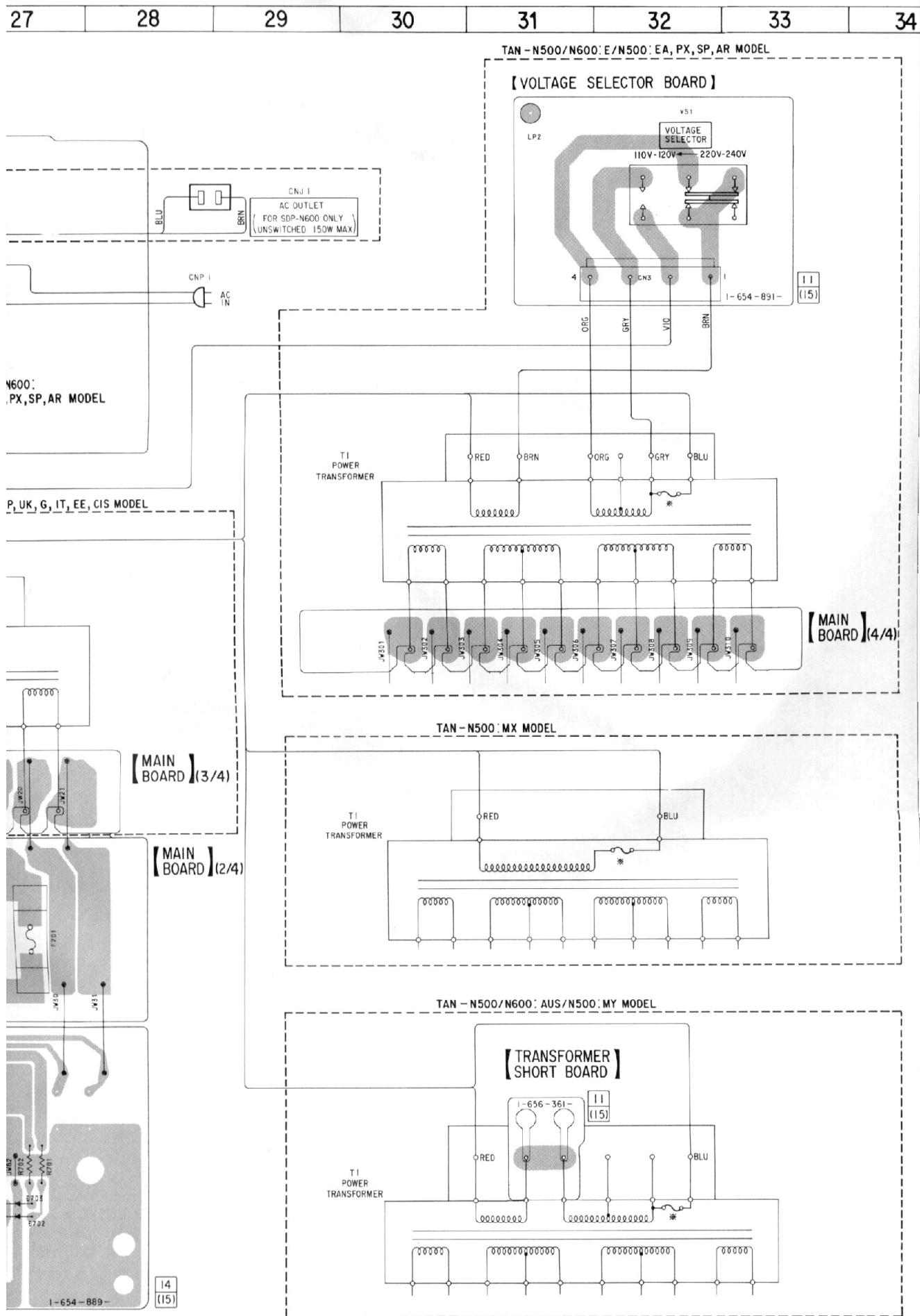
20

21

TAN - N500







*:NOT REPLACEABLE: BUILT IN TRANSFORMER

SECTION 4

EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)
↑ ↑

Parts Color Cabinet's Color

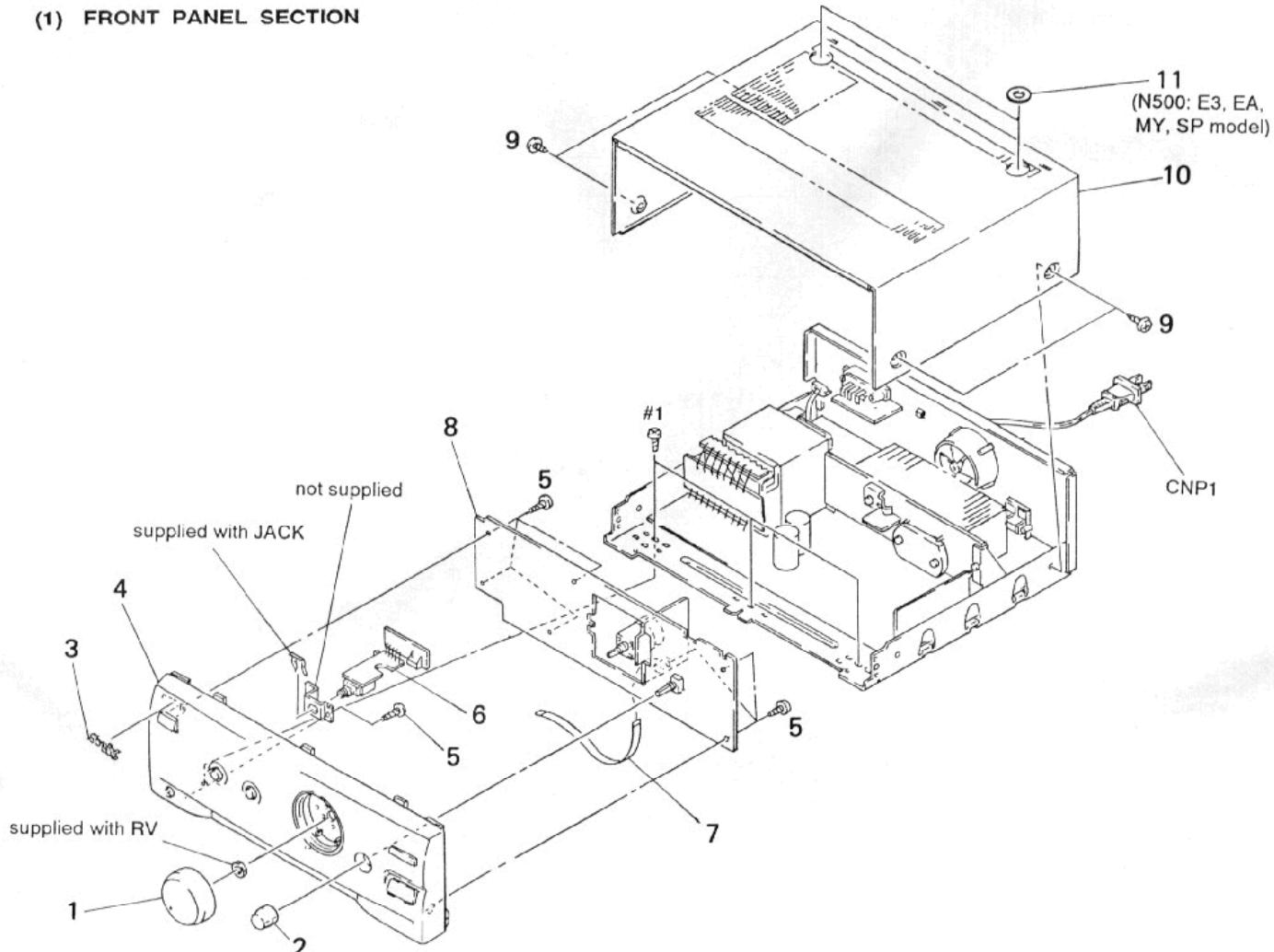
• Abbreviation

G : German model IT : Italian model
 MX : Mexican model SP : Singapore model
 AR : Argentine model E2 : 120 V AC area
 AEP1, G1, IT1, EE1, CIS1 : Model for LBT-N500

EA : Saudi Arabia model EE : East European model
 MY : Malaysia model AUS : Australian model
 E3 : 240 V AC area
 AEP2, UK2, G2, IT2, CIS2 : Model for LBT-N550

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
 Replace only with part number specified.

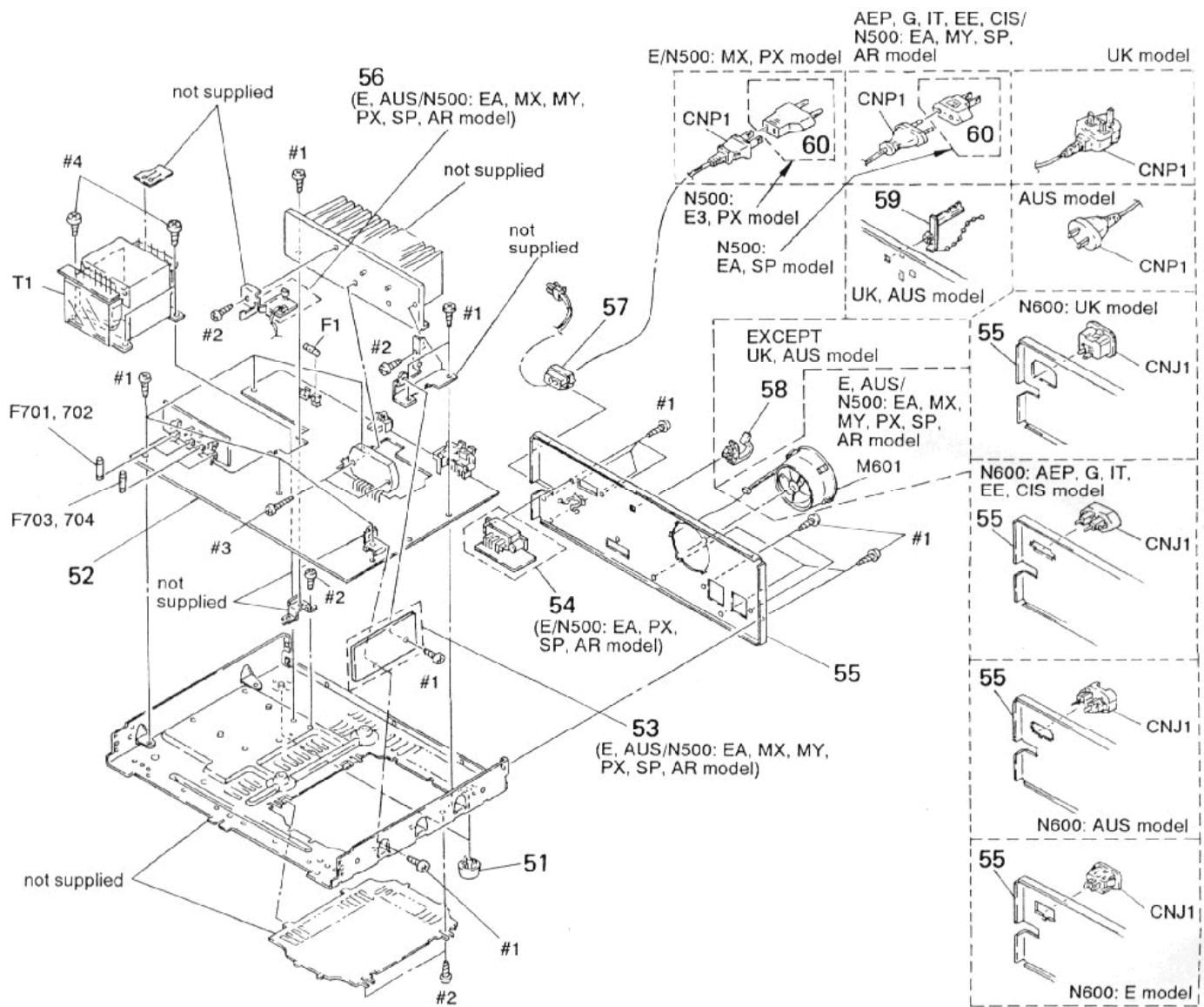
(1) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-969-683-11	KNOB (V)	
2	4-962-703-22	KNOB (SUR)	
3	4-963-404-21	EMBLEM (5-A), SONY (EXCEPT N600:AUS, E)	
4	X-4945-603-1	PANEL ASSY, FRONT (N500:AEP1, G1, IT1, EE1, CIS1)	
4	X-4945-604-1	PANEL ASSY, FRONT (N500:E2, MX, PX, AR, AUS, AEP2, UK2, G2, IT2, CIS2)	
4	X-4945-605-1	PANEL ASSY, FRONT (N500:E3, EA, MY, SP)	
4	X-4945-606-1	PANEL ASSY, FRONT (N600:AEP, UK, G, IT, EE, CIS)	
4	X-4946-128-1	PANEL ASSY, FRONT (N600:E, AUS)	
5	4-951-620-01	SCREW (2.6X8), +BVTP	

Ref. No.	Part No.	Description	Remark
* 6	1-654-890-11	HEADPHONE BOARD	
7	1-590-218-11	WIRE, FLAT TYPE (11 CORE) (N600)	
* 7	1-590-240-11	WIRE, FLAT TYPE (9 CORE) (N500)	
7	1-590-240-31	WIRE, FLAT TYPE (9 CORE) (N500)	
* 8	A 4377-249-A	PANEL BOARD, COMPLETE (N600)	
* 8	A-4377-273-A	PANEL BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)	
* 8	A-4377-331-A	PANEL BOARD, COMPLETE (N500:E, EA, MX, MY, PX, SP, AR, AUS)	
9	3-363-099-01	SCREW (CASE 3 TP2)	
10	4-969-778-11	CASE (N600)	
* 10	4-969-778-51	CASE (N500)	
11	4-975-837-01	STOPPER (N500:E3, EA, MY, SP)	

(2) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
51	X-4941-228-1	FOOT ASSY	
* 52	A-4377-218-A	MAIN BOARD, COMPLETE (N600:AEP, UK, G, IT, EE, CIS)	
* 52	A-4377-271-A	MAIN BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)	
* 52	A-4377-274-A	MAIN BOARD, COMPLETE (N500:E, EA, PX, SP, AR)	
* 52	A-4377-816-A	MAIN BOARD, COMPLETE (N500:MX, MY, AUS)	
* 52	A-4378-418-A	MAIN BOARD, COMPLETE (N600:AUS)	
* 52	A-4378-419-A	MAIN BOARD, COMPLETE (N600:E)	
* 53	A-4378-331-A	DBFB BOARD, COMPLETE (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
* 54	1-654-891-11	VOLTAGE SELECTION BOARD (E/N500:EA, PX, SP, AR)	
* 55	4-969-785-01	PANEL, BACK (N500:AEP, IT)	
* 55	4-969-785-11	PANEL, BACK (N500:G)	
* 55	4-969-785-21	PANEL, BACK (N500:UK)	
* 55	4-969-785-31	PANEL, BACK (N500:EE, CIS)	
* 55	4-970-164-01	PANEL, BACK (N500:E, AR)	
* 55	4-970-164-12	PANEL, BACK (N500:MY)	
* 55	4-970-164-21	PANEL, BACK (N500:SP)	
* 55	4-970-164-31	PANEL, BACK (N500:MX)	
* 55	4-970-164-41	PANEL, BACK (N500:AUS)	
* 55	4-970-164-51	PANEL, BACK (N500:EA, PX)	
* 55	4-970-164-61	PANEL, BACK (N600:E)	
* 55	4-970-164-71	PANEL, BACK (N600:AUS)	
* 55	4-971-710-01	PANEL, BACK (N600:AEP, IT)	
* 55	4-971-710-11	PANEL, BACK (N600:G)	
* 55	4-971-710-21	PANEL, BACK (N600:UK)	
* 55	4-971-710-31	PANEL, BACK (N600:EE, CIS)	
* 56	1-654-892-12	TEMPERATURE SENSOR BOARD (E, AUS/N500:EA, MX, MY, PX, SP, AR)	

Ref. No.	Part No.	Description	Remark
* 57	3-703-244-00	BUSHING (2104), CORD (AEP, UK, G, IT, EE, CIS, AUS/N500:EA, MY, SP, AR)	
57	3-703-571-11	BUSHING (S) (4516), CORD (E/N500:MX, PX)	
* 58	4-949-235-01	HOOK (AEP, G, IT, EE, CIS, E/N500:EA, MX, MY, PX, SP, AR)	
59	4-956-370-12	BAND, PLUG FIXED (UK, AUS)	
▲60	1-569-007-11	ADAPTER, CONVERSION 2P (N500:E3, PX)	
▲60	1-569-008-11	ADAPTER, CONVERSION 2P (N500:EA, SP)	
▲CNJ1	1-526-751-12	OUTLET, AC (N600:UK)	
▲CNJ1	1-526-794-11	OUTLET, AC (N600:AEP, G, IT, EE, CIS)	
▲CNJ1	1-526-882-00	OUTLET, AC (N600:E)	
▲CNJ1	1-540-196-11	OUTLET, AC (N600:AUS)	
▲CNP1	1-558-943-41	CORD, POWER (E/N500:MX, PX)	
▲CNP1	1-575-651-21	CORD, POWER (AEP, G, IT, EE, CIS/N500:EA, MY, SP, AR)	
▲CNP1	1-696-845-11	CORD, POWER (AUS)	
▲CNP1	1-751-529-11	CORD, POWER (UK)	
▲F1	1-532-286-00	FUSE (T2.5A 250V) (N600)	
▲F701	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
▲F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
▲F702	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
▲F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
▲F703	1-532-286-00	FUSE (T2.5A 250V)	
▲F704	1-532-286-00	FUSE (T2.5A 250V)	
M601	X-4942-029-1	CASE ASSY, FAN (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
▲T1	1-427-773-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	
▲T1	1-427-774-11	TRANSFORMER, POWER (E, AUS/N500:EA, MY, PX, SP, AR)	
▲T1	1-427-907-11	TRANSFORMER, POWER (N500:MX)	

Note: The components identified by mark ▲ or dotted line with mark ▲ are critical for safety.
Replace only with part number specified.

SECTION 5

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS

All resistors are in ohms.

METAL: Metal-film resistor.

METAL OXIDE: Metal oxide-film resistor.

F: nonflammable

- Abbreviation G : German IT : Italian
SP : Singapore MY : Malaysia

Ref. No. Part No. Description

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- SEMICONDUCTORS

In each case, u: μ , for example:

uA .. : μ A.. uPA.. : μ PA..

uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..

- CAPACITORS

uF: μ F

- COILS

uH: μ H

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	EA : Saudi Arabia	AUS : Australian	Remark	EE : East European	MX : Mexican	Remark
						AR : Argentine	E3 : 240V AC area	
*	A-4378-331-A	DBFB BOARD, COMPLETE (E, AUS/N500:EA, MX, MY, PX, SP, AR)				R406 1-247-903-00 CARBON	1M 5% 1/4W	
		*****				R407 1-249-437-11 CARBON	47K 5% 1/4W	
		< CAPACITOR >				R408 1-249-437-11 CARBON	47K 5% 1/4W	
	C401	1-124-257-00 ELECT	2. 2uF	20%	50V	R422 1-260-103-11 CARBON	2. 2K 5% 1/2W	
	C402	1-136-177-00 FILM	1uF	5%	50V	R423 1-260-103-11 CARBON	2. 2K 5% 1/2W	
	C403	1-136-177-00 FILM	1uF	5%	50V			
	C421	1-161-494-00 CERAMIC	0. 022uF		25V			
	C451	1-124-257-00 ELECT	2. 2uF	20%	50V			
	C452	1-136-177-00 FILM	1uF	5%	50V			
	C453	1-136-177-00 FILM	1uF	5%	50V			
	C471	1-161-494-00 CERAMIC	0. 022uF		25V			
		< CONNECTOR >						
* CM401	1-564-506-11	PLUG, CONNECTOR 3P				R454 1-249-423-11 CARBON	3. 3K 5% 1/4W	
		< DIODE >				R455 1-249-417-11 CARBON	1K 5% 1/4W	
D421	8-719-000-84	DIODE UZL-7M1				R456 1-247-903-00 CARBON	1M 5% 1/4W	
D471	8-719-000-84	DIODE UZL-7M1				R457 1-249-437-11 CARBON	47K 5% 1/4W	
		< IC >				R458 1-249-437-11 CARBON	47K 5% 1/4W	
IC401	8-759-634-51	IC M5218AP				R472 1-260-103-11 CARBON	2. 2K 5% 1/2W	
		< TRANSISTOR >						
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE				R473 1-260-103-11 CARBON	2. 2K 5% 1/2W	
Q402	8-729-119-78	TRANSISTOR 2SC2785 HFE				R474 1-249-423-11 CARBON	3. 3K 5% 1/4W	
Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE						
Q451	8-729-119-78	TRANSISTOR 2SC2785-HFE						
Q452	8-729-119-78	TRANSISTOR 2SC2785-HFE						
Q473	8-729-119-76	TRANSISTOR 2SA1175-HFE						
		< RESISTOR >						
R401	1-249-437-11	CARBON 47K 5% 1/4W						
R402	1-247-807-31	CARBON 100 5% 1/4W						
R403	1-249-429-11	CARBON 10K 5% 1/4W						
R404	1-249-407-11	CARBON 150 5% 1/4W						
R405	1-249-417-11	CARBON 1K 5% 1/4W						
		< CAPACITOR >						
C101	1-162-286-31	CERAMIC 220PF 10% 50						
		(AEP, UK, G, IT, EE, CIS)						
C151	1-162-286-31	CERAMIC 220PF 10% 50V						
		(AEP, UK, G, IT, EE, CIS)						
C301	1-124-925-11	ELECT 2. 2uF 20% 100V						
C302	1-162-282-31	CERAMIC 100PF 10% 50V						
		(AEP, UK, G, IT, EE, CIS)						

MAIN

MAIN

Ref. No.	Part No.	Description	Remark
D481	8-719-987-63	DIODE 1N4148M (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
D501	8-719-987-63	DIODE 1N4148M	
D502	8-719-987-63	DIODE 1N4148M	
D601	8-719-987-63	DIODE 1N4148M (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
D602	8-719-987-63	DIODE 1N4148M (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
D701	8-719-028-23	DIODE D3SBA20-4101 (AEP, UK, G, IT, EE, CIS)	
D701	8-719-510-68	DIODE D5SBA20F01 (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-024-99	DIODE 11ES2-NTA2B	
D705	8-719-024-99	DIODE 11ES2-NTA2B	
D706	8-719-024-99	DIODE 11ES2-NTA2B	
D707	8-719-024-99	DIODE 11ES2-NTA2B	
D708	8-719-024-99	DIODE 11ES2-NTA2B	
< FUSE >			
△F1	1-532-286-00	FUSE (T2.5A 250V) (N600)	
△F701	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
△F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
△F702	1-532-299-00	FUSE (T5A 250V) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
△F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
△F703	1-532-286-00	FUSE (T2.5A 250V)	
△F704	1-532-286-00	FUSE (T2.5A 250V)	
< IC >			
IC301	8-749-920-09	IC STK-4152MK2K (AEP, UK, G, IT, EE, CIS)	
IC301	8-749-900-34	IC STK-4182MK2 (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
IC501	8-759-111-68	IC uPC1237HA	
IC601	8-759-103-93	IC uPC393C (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
< COIL >			
L301	1-420-872-00	COIL, AIR-CORE	
L302	1-420-872-00	COIL, AIR-CORE (N500:AEP, UK, G, IT, EE, CIS)	
L351	1-420-872-00	COIL, AIR-CORE	
L352	1-420-872-00	COIL, AIR-CORE (N500:AEP, UK, G, IT, EE, CIS)	
< TRANSISTOR >			
Q301	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q351	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q501	8-729-900-63	TRANSISTOR DTA124ES	

Ref. No.	Part No.	Description	Remark
Q502	8-729-900-36	TRANSISTOR DTC124ES	
Q503	8-729-900-36	TRANSISTOR DTC124ES	
Q504	8-729-900-36	TRANSISTOR DTC124ES	
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q601	8-729-140-93	TRANSISTOR 2SB733-34 (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
< RESISTOR >			
R101	1-247-807-31	CARBON 100 5% 1/4W	
R102	1-249-441-11	CARBON 100K 5% 1/4W	
R151	1-247-807-31	CARBON 100 5% 1/4W	
R152	1-249-441-11	CARBON 100K 5% 1/4W	
R301	1-249-417-11	CARBON 1K 5% 1/4W	
R302	1-249-438-11	CARBON 56K 5% 1/4W	
R303	1-249-413-11	CARBON 470 5% 1/4W	
R304	1-249-438-11	CARBON 56K 5% 1/4W	
R305	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R305	1-249-427-11	CARBON 6.8K 5% 1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
R306	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R306	1-249-427-11	CARBON 6.8K 5% 1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
R307	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R307	1-249-427-11	CARBON 6.8K 5% 1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
R308	1-249-425-11	CARBON 4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	
R308	1-249-427-11	CARBON 6.8K 5% 1/4W (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
△R309	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△R310	1-217-156-00	WIREWOUND 0.22 10% 5W F	
R311	1-249-417-11	CARBON 1K 5% 1/4W	
R312	1-249-431-11	CARBON 15K 5% 1/4W	
R313	1-249-441-11	CARBON 100K 5% 1/4W	
R314	1-249-397-11	CARBON 22 5% 1/4W	
R315	1-249-397-11	CARBON 22 5% 1/4W	
R316	1-249-438-11	CARBON 56K 5% 1/4W	
R317	1-249-421-11	CARBON 2.2K 5% 1/4W	
R318	1-249-421-11	CARBON 2.2K 5% 1/4W	
△R319	1-249-383-11	CARBON 1.5 5% 1/6W F	
△R320	1-215-890-11	METAL OXIDE 470 5% 2W F (AEP, UK, G, IT, EE, CIS)	
△R320	1-215-891-11	METAL OXIDE 680 5% 2W F (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
R321	1-260-074-11	CARBON 6.8 5% 1/2W (AEP, UK, G, IT, EE, CIS)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R322	1-260-095-11	CARBON	470 5% 1/2W	R504	1-249-430-11	CARBON	12K 5% 1/4W
R324	1-260-076-11	CARBON	10 5% 1/2W	R505	1-249-441-11	CARBON	100K 5% 1/4W
R351	1-249-417-11	CARBON	1K 5% 1/4W	R506	1-249-411-11	CARBON	330 5% 1/4W
R352	1-249-438-11	CARBON	56K 5% 1/4W	R507	1-249-411-11	CARBON	330 5% 1/4W
R353	1-249-413-11	CARBON	470 5% 1/4W	R508	1-249-439-11	CARBON	68K 5% 1/4W
R354	1-249-438-11	CARBON	56K 5% 1/4W	R509	1-249-441-11	CARBON	100K 5% 1/4W
R355	1-249-425-11	CARBON	4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	R510	1-249-429-11	CARBON	10K 5% 1/4W
R355	1-249-427-11	CARBON	6.8K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)	R511	1-249-437-11	CARBON	47K 5% 1/4W
R356	1-249-425-11	CARBON	4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	R512	1-249-417-11	CARBON	1K 5% 1/4W
R356	1-249-427-11	CARBON	6.8K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)	R513	1-249-437-11	CARBON	47K 5% 1/4W
R357	1-249-425-11	CARBON	4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	R514	1-249-429-11	CARBON	10K 5% 1/4W
R357	1-249-427-11	CARBON	6.8K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)	R515	1-247-881-00	CARBON	120K 5% 1/4W
R358	1-249-425-11	CARBON	4.7K 5% 1/4W (AEP, UK, G, IT, EE, CIS)	R601	1-247-807-31	CARBON	100 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R358	1-249-427-11	CARBON	6.8K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)	R602	1-249-441-11	CARBON	100K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
△R359	1-212-881-11	FUSIBLE	100 5% 1/4W F	R603	1-249-417-11	CARBON	1K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
△R360	1-217-156-00	WIREWOUND	0.22 10% 5W F	R604	1-249-427-11	CARBON	6.8K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R361	1-249-417-11	CARBON	1K 5% 1/4W	R605	1-249-439-11	CARBON	68K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R362	1-249-431-11	CARBON	15K 5% 1/4W	R606	1-249-417-11	CARBON	1K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R363	1-249-441-11	CARBON	100K 5% 1/4W	R607	1-249-417-11	CARBON	1K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R364	1-249-397-11	CARBON	22 5% 1/4W	R608	1-249-417-11	CARBON	1K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R365	1-249-397-11	CARBON	22 5% 1/4W	R609	1-249-417-11	CARBON	1K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R366	1-249-437-11	CARBON	47K 5% 1/4W	R610	1-249-396-11	CARBON	18 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R367	1-249-421-11	CARBON	2.2K 5% 1/4W	R611	1-249-389-11	CARBON	4.7 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)
R368	1-249-421-11	CARBON	2.2K 5% 1/4W	R701	1-249-427-11	CARBON	6.8K 5% 1/4W
R371	1-260-074-11	CARBON	6.8 5% 1/2W (AEP, UK, G, IT, EE, CIS)	R702	1-249-427-11	CARBON	6.8K 5% 1/4W
R372	1-260-095-11	CARBON	470 5% 1/2W				< RELAY >
R374	1-260-076-11	CARBON	10 5% 1/2W	RY301	1-515-920-11	RELAY (24V)	
R421	1-249-429-11	CARBON	10K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)				< TRANSFORMER >
R471	1-249-429-11	CARBON	10K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)	△T1	1-427-773-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	
R481	1-249-411-11	CARBON	330 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)	△T1	1-427-774-11	TRANSFORMER, POWER (E, AUS/N500: EA, MY, PX, SP, AR)	
R482	1-249-417-11	CARBON	1K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)	△T1	1-427-907-11	TRANSFORMER, POWER (N500: MX)	
R483	1-247-887-00	CARBON	220K 5% 1/4W (E, AUS/N500: EA, MX, MY, PX, SP, AR)				
R501	1-249-429-11	CARBON	10K 5% 1/4W				
R502	1-249-441-11	CARBON	100K 5% 1/4W				
R503	1-249-437-11	CARBON	47K 5% 1/4W				

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

MAIN **PANEL** **HEADPHONE** **TEMPERATURE SENSOR**

VOLTAGE SELECTION

Ref. No.	Part No.	Description	Remark		
< TERMINAL >					
TM301	1-537-842-11	TERMINAL BOARD (SPEAKER)	(AEP, UK, G, IT, EE, CIS)		
TM301	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (SPEAKER)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)		
TM302	1-537-240-11	TERMINAL BOARD (CHECKER PIN)	(SURROUND SPEAKER) (N500)		

*	A-4377-331-A	PANEL BOARD, COMPLETE	(N500:E, EA, MX, MY, PX, SP, AR, AUS)		
*	A-4377-273-A	PANEL BOARD, COMPLETE	(N500:AEP, UK, G, IT, EE, CIS)		
*	A-4377-249-A	PANEL BOARD, COMPLETE (N600)	*****		
< CAPACITOR >					
C201	1-124-925-11	ELECT	2. 2uF	20%	100V
C203	1-124-443-00	ELECT	100uF	20%	10V
C204	1-161-494-00	CERAMIC	0. 022uF		25V
C251	1-124-925-11	ELECT	2. 2uF	20%	100V
< CONNECTOR >					
* CN201	1-568-830-11	SOCKET, CONNECTOR 11P	(N600)		
* CN201	1-568-828-11	SOCKET, CONNECTOR 9P	(N500)		
< DIODE >					
D201	8-719-045-39	LED	SML12460C-TP4	(SYSTEM POWER)	
D202	8-719-024-99	DIODE	11ES2-NTA2B		
D203	8-719-024-99	DIODE	11ES2-NTA2B		
D204	8-719-987-63	DIODE	1N4148M		
D205	8-719-987-63	DIODE	1N4148M		
< IC >					
IC201	8 759 820 62	IC	LB1639		
< TRANSISTOR >					
Q201	8-729-900-36	TRANSISTOR	DTC124ES		
Q202	8-729-422-57	TRANSISTOR	UN4111		
Q205	8-729-422-57	TRANSISTOR	UN4111		
< RESISTOR >					
R201	1-249-421-11	CARBON	2. 2K	5%	1/4W
R202	1-249-421-11	CARBON	2. 2K	5%	1/4W
R203	1-249-417-11	CARBON	1K	5%	1/4W
R211	1-249-413-11	CARBON	470	5%	1/4W
R212	1-249-419-11	CARBON	1. 5K	5%	1/4W
R213	1-249-425-11	CARBON	4. 7K	5%	1/4W
R214	1-249-432-11	CARBON	18K	5%	1/4W
R217	1-249-419-11	CARBON	1. 5K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
< VARIABLE RESISTOR >					
R218	1-249-423-11	CARBON	3. 3K	5%	1/4W
R219	1-249-437-11	CARBON	47K	5%	1/4W
R220	1-249-417-11	CARBON	1K	5%	1/4W
< SWITCH >					
RV201	1-223-847-11	RES, VAR, CARBON	100K (BALANCE)		
RV202	1-223-845-11	RES, VAR, CARBON	10K/100KX2 (MASTER VOLUME) (N600)		
RV202	1-223-844-11	RES, VAR, CARBON	100KX2 (VOLUME) (N500)		
< CONNECTOR >					
S201	1-554-303-21	SWITCH, TACTILE	(DBFB)		
S202	1-554-303-21	SWITCH, TACTILE	(SURROUND) (N500)		
S202	1-554-303-21	SWITCH, TACTILE	(S-SURROUND) (N600)		
S203	1-554-303-21	SWITCH, TACTILE	(SYSTEM POWER)		
S204	1-554-303-21	SWITCH, TACTILE	(SLEEP)		
S205	1-554-303-21	SWITCH, TACTILE	(FUNCTION)		
< JACK >					
J301	1-580-903-11	JACK, LARGE TYPE	(PHONES)		
< CAPACITOR >					
C606	1-164-159-11	CERAMIC	0. 1uF		50V
< IC >					
IC602	8-759-947-34	IC	LM35DZ		
< RESISTOR >					
R612	1-247-807-31	CARBON	100	5%	1/4W
< CAPACITOR >					
CN3	1-568-106-11	PIN, CONNECTOR	4P		

Ref. No.	Part No.	Description	Remark
< VOLTAGE SELECTOR >			

AVS1 1-762-298-11 SW, AC POWER VOLTAGE SELECTOR
(VOLTAGE SELECTOR)

MISCELLANEOUS

7 1-590-218-11 WIRE, FLAT TYPE (11 CORE) (N600)
* 7 1-590-240-11 WIRE, FLAT TYPE (9 CORE) (N500)
7 1-590-240-31 WIRE, FLAT TYPE (9 CORE) (N500)
A60 1-569-007-11 ADAPTER, CONVERSION 2P (N500:E3, PX)
A60 1-569-008-11 ADAPTER, CONVERSION 2P (N500:EA, SP)

ACNJ1 1-526-751-12 OUTLET, AC (N600:UK)
ACNJ1 1-526-794-11 OUTLET, AC (N600:AEP, G, IT, EE, CIS)
ACNJ1 1-526-882-00 OUTLET, AC (N600:E)
ACNJ1 1-540-196-11 OUTLET, AC (N600:AUS)
ACNP1 1-558-943-41 CORD, POWER (E/N500:MX, PX)

ACNP1 1-575-651-21 CORD, POWER
(AEP, G, IT, EE, CIS/N500:EA, MY, SP, AR)
ACNP1 1-696-845-11 CORD, POWER (AUS)
ACNP1 1-751-529-11 CORD, POWER (UK)

AF1 1-532-286-00 FUSE (T2.5A 250V) (N600)
AF701 1-532-299-00 FUSE (T5A 250V)
(E, AUS/N500:EA, MX, MY, PX, SP, AR)
AF701 1-532-350-00 FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)
AF702 1-532-299-00 FUSE (T5A 250V)
(E, AUS/N500:EA, MX, MY, PX, SP, AR)

AF702 1-532-350-00 FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)
AF703 1-532-286-00 FUSE (T2.5A 250V)
AF704 1-532-286-00 FUSE (T2.5A 250V)
AT1 1-427-773-11 TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)
AT1 1-427-774-11 TRANSFORMER, POWER
(E, AUS/N500:EA, MY, PX, SP, AR)

AT1 1-427-907-11 TRANSFORMER, POWER (N500:MX)

HARDWARE LIST

#1 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
#2 7-685-645-79 SCREW +BVTP 3X6 TYPE2 N-S
#3 7-685-650-79 SCREW +BVTP 3X16 TYPE2 N-S
#4 7-682-560-04 SCREW +BVTT 4X6 (S)

The components identified by
mark **A** or dotted line with mark.
A are critical for safety.
Replace only with part number
specified.